



basic education

Department:
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Grade 3 Mathematics Mental Starters Assessment Project (MSAP)

Mental Starters: Tasks and Assessments

TEACHER GUIDE: ISIXHOSA



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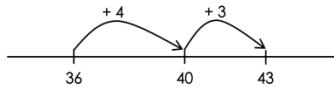
INTSHAYELELO

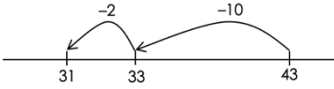
Esi sikhokelo sikatishala siqulathe **izifundwana eziqalayo ezi-6 zezeNtloko kwiMathematika** zabafundi beBanga lesi-3. **Indlela eyahlukileyo yokwenza** ubalo kugxilwa kuyo kwiyunithi nganye. Ezi ndlela zokwenza ubalo zithatyathwe kwikharithulam. Iyunithi nganye ihlanganisa iqela elithile lezakhono ezidibanayo.

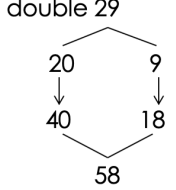
Injongo kukuba abafundi basuke ekubaleni ngoononye eminweni yabo okanye ngokwethali ephepheni. Ukubala ngoononye kutya ixesha kwaye kwenzisa iimpazamo. Kwakhona iye ingasebenzisi kakuhle njengokuba uluhlu lwamanani lukhula. lindlela zokwenza kunye nezakhono zancedisa ngamandla kwinani.

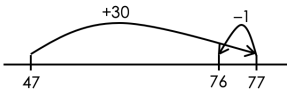
Indlela zokwenza ukubala ezintandathu kunye nobume bexesha

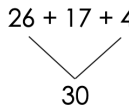
Iyunithi zihlanganiswe kuzo zonke iikota zokuqala ezintathu ngolu hlobo:

Ikota 1	Ukubala ngamashumi	$36 + 7 =$		$= 43$
---------	--------------------	------------	--	--------

Ikota 1	Indlela yokwenza utsibo	$43 - 12 =$		$= 31$
---------	-------------------------	-------------	---	--------

Ikota 2	Phinda kabini nehafu	Phinda kabini $29 =$	<div style="text-align: center;"> double 29  </div>	$= 58$
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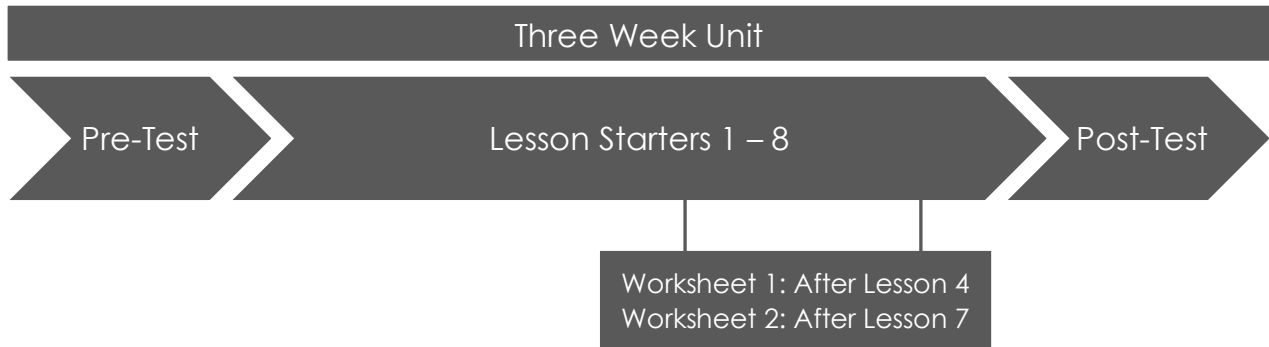
Ikota 2	Ukufikelela nokulungelelanisa	$47 + 29 =$		$= 76$
---------	-------------------------------	-------------	--	--------

Ikota 3	Hlela kwakhona	$26 + 17 + 4 =$	<div style="text-align: center;"> $26 + 17 + 4$  </div>	$= 47$
---------	----------------	-----------------	---	--------

Ikota 3	Qhagamshela ukudibanisa nokuthabatha	$\square - 30 = 9$	<div style="text-align: center;"> <table border="1" style="margin: 0 auto;"> <tr> <td style="padding: 2px 10px;">30</td> <td style="padding: 2px 10px;">9</td> </tr> <tr> <td colspan="2" style="height: 20px;"></td> </tr> </table> $30 + 9 = \square$ </div>	30	9			$= 39$
30	9							

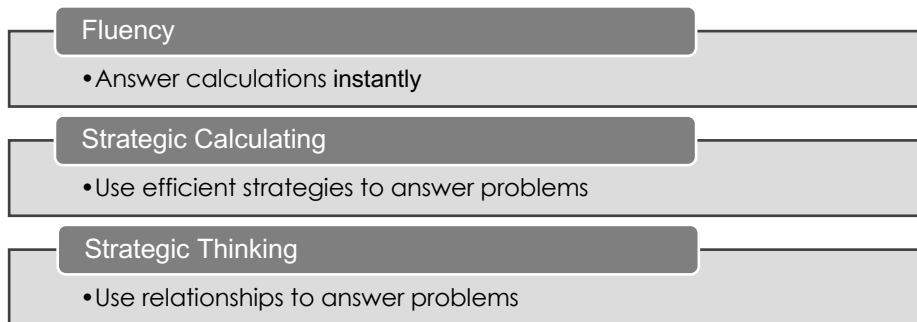
Imodeli

Iyunithi nganye iziveki ezintathu ubude kwaye ilandela le modeli:



Iyunithi nganye iqala iphele ngovavanyo lwabafundi olufutshane. Ukukorekisha olu vavanyo kunika wena nabafundi ingxelo yokuba benze ngcono kangakanani ekusebenziseni ezi zakhono zithile ngezaveki zintathu.

Kwiyunithi nganye sigxila kwiindlela ezintathu zokubala:



Ukusebenza ngokuqala kwesifundo kwiyunithi nganye nabafundi bakho makukhokelele kwimpumelelo kwindlela abafundi abaqhuba ngayo ukusukela kuvavanyo lwangaphambili ukuya kwelo kwasemva. Oku kuqhuba kakuhle kubonisa ukuqhuba kakuhle kwizakhono zemathematika zezentloko kunye nakumanani.

Ungasisebenzisa njani esi sikhokelo

Le ncwadana inika iinkcukacha zeemvavanyo kunye nokuqala kwezifundo kwiyunithi nganye. Izifundo eziqalayo zenziwe ukuba zingene kwi **mizuzu eli-10** ye-orali kwicandelo lezentloko kwimathematika ekuqaleni kwesifundo sakho semathematika.

Isifundo ngasinye esiqalayo siqala ngokwenza **umzuzu om-1 lubalo ngentloko** ugxile kwizakhono ezibalulekileyo zokukhumbula ngokukhawuleza kuloo yunithi. Abafundi kufuneka baphendule le mibuzo ngokukhawuleza nangokuzithemba.

Umsebenzi wesifundo esiqalayo ulandelelana nobalo ngentloko. Umsebenzi olandelelanayo kwisifundo esiqalayo uchaza:

- **uyifundisa njani** le ndlela yokwenza (boniswe ekhohlo) kunye
- **ubhala ntoni** ebhodini (boniswe ekunene)

Emva kwesifundo ngasinye esiqalayo **sinemisebenzi yomfundi ngamnye** yokugqibezela. Abafundi kufuneka bayizame le misebenzi yezentloko besebenzise enye indlela le bebeyifundisiwe. Xelela abafundi ukuba **bangabali ngoono-1**. Ukuba abafundi bayasokola, yithi mabakubonise kumgca manani ongenanto ukuba babale njani,

umzekelo. kumgca manani ongenanto, okanye kumzobo wedayagram. Umgca manani kunye nomzobo wedayagram kufuneka ungabukeki kuba injongo kukukhawuleza uncedise ukubala ngezentloko.

Buza abafundi ukuba **bachaze indlela abacinga ngayo** kuwe nakwabanye. Oko kuzavumela ukwazi ukuhlola ukuba ingaba bayayisebenzisa na le ndlela yokwenza bebeyifundisiwe.

Ividiyo ezincedisayo: Kwinkqubo nganye yokuqala kwesifundo kune linki yevidiyo emfutshane ebonisa ukuba le ndlela yokwenza isebenza njani na. Ungayivula ilinki ngoku:

- ngokusondeza ikhamera yefowni yakho kwisikwere esibhalwe QR ikhowudi okanye
- ngokutayipha youtu.be link kwi web browser

Emveni kokuqala kwesifundo 4 kunye nokuqala kwesifundo 7, **kukho imisebenzi yokuziqhelanisa yomfundi ngamnye** angayisebenzisa ekhaya.

IMemorandam yovavanyo lwaphambi nasemva kunye namaphepha anemisebenzi anikiwe ekupheleni kwesi sikhokelo.

Incwadi eprintwayo

Kunenye **incwadi eprintwayo** equlathe oku:

- zonke iimvavanyo zaphambi kunye nasemva
- yonke imisebenzi esetyenziswa ekhaya
- zonke izixhobo zokufundisa eziprintwayo

UKUBALA NGAMASHUMI

Intshayelelo

Kwizifundo ezine zokuqala kugxilwe ekudibaniseni ngokubala ngamashumi. Kwizifundo ezine zokuqala ezilandelayo, kugxilwe ekuthabatheni ngokubala ngamashumi. Eminye kule misebenzi ngutishala okhokelayo ebhodini kanti eminye yeyabafundi ukuba bazenzele bengancediswa.

Izakhono zokukhawuleza ukhumbule

Kunezakhono ezintandathu zokukhawuleza ukhumbule ekufuneka abafundi bezifundile ukuvala ngamashumi:

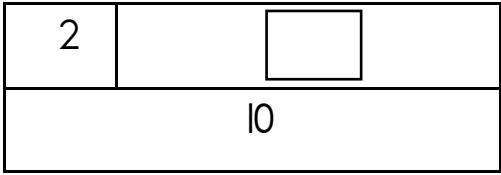
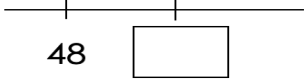
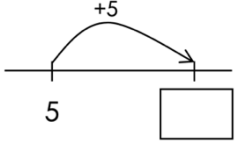
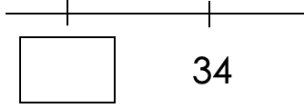
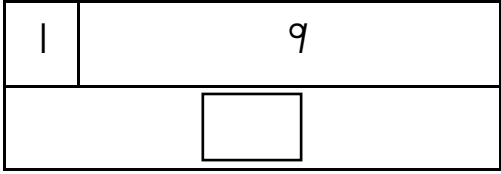
- iibhondi ze-10 kunye nokuphindaphinda (umzekelo. $7 + \square = 10$; $12 + \square = 20$)
- udibanisa kuphindaphindo lweshumi (umzekelo. $60 + 3 = 63$)
- uthabatha kuphindaphindo lweshumi (umzekelo. $60 - 2 = 58$)
- utsibela kuphindaphindo lweshumi **olulandelayo** emveni kwenani (umzekelo. $32 \rightarrow 40$)
- utsibela kuphindaphindo lweshumi **phambi** kwenani (umzekelo. $56 \rightarrow 50$)
- utshintsha ulandelelwano lokubala (umzekelo. $7 +$ lithini ishumi? Udibanisa ntoni ku- 7 uzokufumana ishumi?)

Igama:

Ukubala ngamaShumi: Phambi kovavanyo

ICANDELO I

Imizuzu-2 kweli phepha

1. $7 + 3 = \square$	11. $50 + 6 = \square$
2. $2 + 8 = \square$	12. $3 + 60 = \square$
3. $10 = 7 + \square$	13. $40 - 7 = \square$
4. 8 mncinci kangakanani kwi-10 \square	14. $40 + 8 = \square$
5. 	15. Luthini uphindaphindo olulandelayo lwe-10? 
6. 	16. $100 + 27 = \square$
7. $10 - 5 = \square$	17. Luthini uphindaphindo lwe-10 phambi kwama-34? 
8. $10 - 4 = \square$	18. $\square + 7 = 50$
9. 	19. $30 - \square = 27$
10. $\square + 10 = 10$	20. $87 = 80 + \square$

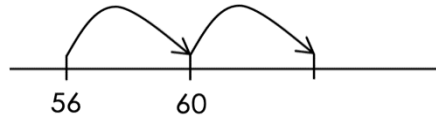
Itotali 20

Ukubala ngamaShumi: Phambi kovavanyo

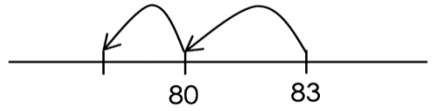
ICANDELO 2

Imizuzu -3 kweli phepha

1. $56 + 8 = \square$



2. $83 - 4 = \square$



3. $93 - 7 = \square$

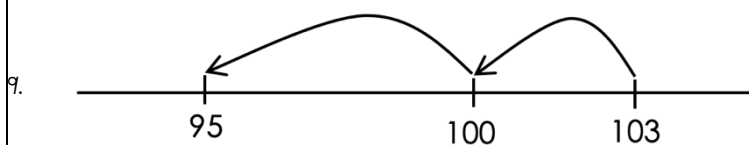
4. $67 + \square = 73$

5. $\square + 7 = 82$

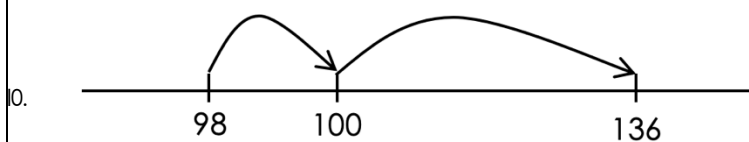
6. $67 + 5 = 67 + 3 + \square$

7. $94 - \square = 94 - 4 - 2$

8. $98 + 56 = 98 + 2 + \square$



$103 - \square = 95$



$98 + \square = 136$

Itotali 10

UKUBALA NGAMASHUMI: ISIFUNDO ESIQALAYO 1

Umzuzu om-1 ubalo ngeNtloko

Ipop-Fiz

Utishala uthi ‘pop’ ze bona abafundi bathi‘fiz’; emva koko utishala ubiza inani, abafundi baphendule ngenani elihambelana nesakhono sokukhawuleza ukhumbule.

a.Ipop-Fiz Yenza i-10

Kule nguqulelo, abafundi kufuneka baphendule ngenani elithi likhuphe isiphumo esili-10.

- Utishala: pop → Abafundi: fiz
- Utishala: 3 → Abafundi: 7
- Utishala: pop → Abafundi: fiz
- Utishala: 6 → Abafundi: 4 njalo njalo...

b. Ipop-Fiz Yenza ama-20 (okanye olunye uphindaphindo lwe- 10)

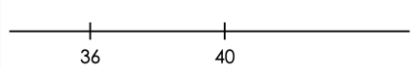
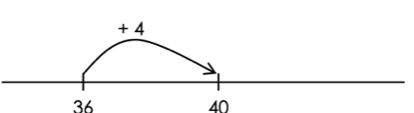
Kule nguqulelo, abafundi kufuneka baphendule ngenani elithi likhuphe isiphumo esingama-20 (okanye naluphi na uphindaphindo lwe- 10).

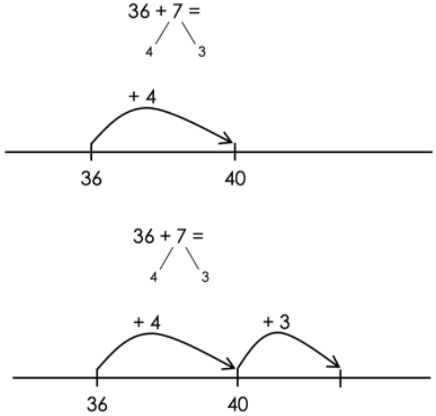
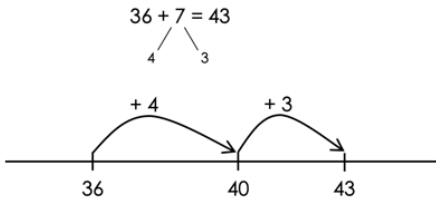
- Utishala: pop → Abafundi: fiz
- Utishala: 16 → Abafundi: 4

- Utishala: pop → Abafundi: fiz
- Utishala: 11 → Abafundi: 9 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo, sisebenzisa indlela yokubala ngamashumi sibala ngokudibanisa.

<p>Ingxaki: $36 + 7$ Bhala ‘$36 + 7 =$’ ebhodini. Zoba umgca ze uphawule indawo ebhalwe ‘36’. Utishala: Siyadibanisa ngoko kufuneka sitsibe sisiya phambili. Ngubani uphindaphindo olulandelayo lweshumi emva kwama-36? Umfundi makeze azokuphawula emgcani ‘40’.</p>	<p style="text-align: center;">$36 + 7 =$</p> 
<p>Utishala: Kufuneka sitsibe sisiya phambili ka-7 sisuka kuma -36. Masitsibe kube ka-1 siye kuphindaphindo lweshumi olulandelayo kunokutsiba ngoono-1. 36 dibanisa bani ufumane 40? Abafundi: 4</p>	<p style="text-align: center;">$36 + 7 =$</p> 

<p>Utishala: Sidibanise isi- 4. Kufuneka sidibanise isi- 7. Isi-7 sahlulwa sibe sisi- 4 kunye nabani?</p> <p>Abafundi: 3</p> <p>Hlula isi- 7 kuma $36 + 7$ ibe sisi- 4 kunye nesi- 3.</p> <p>Utishala: Zininzi kangakanani ezinye ekufuneka sizongezile?</p> <p>Abafundi: 3</p>	 <p>The first diagram shows the equation $36 + 7 =$ with 7 split into 4 and 3. A number line starts at 36, jumps +4 to 40, and then +3 to 43. The second diagram is identical but the final point is 43.</p>
<p>Utishala: Ngubani ama- 40 uwadibanise nesi- 3?</p> <p>Abafundi: 43</p> <p>Utishala: Ngoko ke, $36 + 7 = 36 + 4 + 3 = 43$</p>	 <p>The diagram shows the equation $36 + 7 = 43$ with 7 split into 4 and 3. A number line starts at 36, jumps +4 to 40, and then +3 to 43.</p>

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$48 + 6$ $63 + 8$

Abafundi kufuneka bachaze iingcinga zabo, umzekelo. “ama $48 + 6$, ndidibanise 2 kuma 48 ufumane 50, ze ndandule ukudibanisa isi-4, ngoko impendulo ngama 54.”

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukukwenza oku ngezentloko bangazoba umgca manani azokubanceda.

Ividiyo ezincedisayo

Bridging Through Ten 1



https://youtu.be/iJNrdV3P4_s

lividiyo ezincedisayo

Bridging Through Ten 2



<https://youtu.be/upvlvkC3Yko>

UKUBALA NGAMASHUMI: ISIFUNDO ESICALAYO 2

Umzuzu om-1 ubalo ngeNtloko

a. IPop-Fiz: Yenza i-10 kunye/okanye Yenza ama- 20 (okanye naluphi na uphindaphindo lwe- 10)

b. Tsibela kuphindaphindo **olulandelayo** lwe-10 (umzekelo. 23 → 30; 56 → 60)

Oku asikokusondeza kwishumi elikufutshane kodwa kukutsibela **kolulandelayo** uphindaphindo lweshumi kumgca manani.

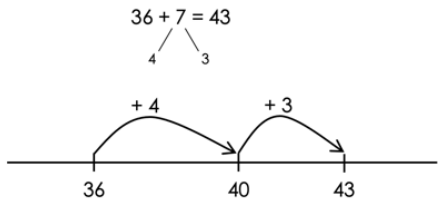
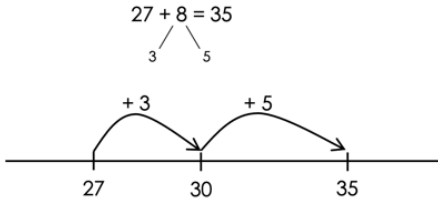
“Luthini uphindaphindo lweshumi **olulandela emva ...?**”

Utishala: 47 → Abafundi: 50

Utishala: 32 → Abafundi: 40 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo, sisebenzisa indlela yokubala ngamashumi sibala ngokudibanisa.

<p>Buza abafundi ukuba bakhumbule kokwayizolo: Besisombulule njani $36 + 7$?</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe ‘36’.</p> <p>Utishala: Siyadibanisa ngoko kufuneka sitsibele phambili. Ngubani uphindaphindo lweshumi olulandelayo emva kwama- 36?</p> <p>Abafundi: 40</p> <p>Umfundi makeze azokuphawula umgca.</p> <p>Vumela abafundi bachaze indlela yokubala nendlela esebenza ngayo, kwaye bayibonise ebhodini.</p>	<p>Umfanekiso wokugqibela opheleleyo uboniswa ngezantsi:</p> 
<p>Ngoku, bonisa ebhodini indlela yokubala ngamashumi ukulungisa: $27 + 8$</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe ‘27’ kwaye basombulule ingxaki besebenzisa indlela yokubala ngamashumi.</p>	<p>Umfanekiso wokugqibela opheleleyo uboniswa ngezantsi :</p> 

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*: $42 + 9$

Abafundi mabachaze iingcinga zabo, umzekelo. “wama $42 + 9$, ndidibanise 8 kuma 42 ndifumane 50, ndandule ukudibanisa u-1 impendulo ngama-51”.

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukukwenza oku ngezentloko bangazoba umgca manani azokubanceda.

lividiyo ezincedisayo

Bridging Through Ten 3



https://youtu.be/wDEEqU9B_5Q

UKUBALA NGAMASHUMI: ISIFUNDO ESIQALAYO 3

Umzuzu om-1 ubalo ngeNtloko

a. Ukutsibela **kolulandelayo** uphindaphindo lweshumi (umzekelo. 23 → 30; 56 → 60)

b. Udibanisa kuphindaphindo lweshumi

“Ngubani ama...?”

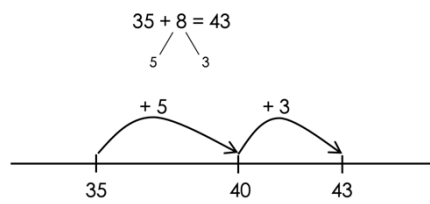
Utishala: 30 + 6 → Abafundi: 36

Utishala: 50 + 2 → Abafundi: 52

Utishala: 70 + 5 → Abafundi: 75 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo, sisebenzisa indlela yokubala ngamashumi sibala ngokudibanisa.

<p>Bonisa ebhodini indlela yokubala ngamashumi ukuze usombulule: $35 + 8$</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe '35'.</p> <p>Sombulula ingxaki usebenzisa indlela yokubala ngamashumi.</p>	<p>Umfanekiso wokugqibela ophelileyo uboniswa ngezantsi:</p> 
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezantloko*:

$44 + 8$ $39 + 7$

Abafundi mabachaze iingcinga zabo, umzekelo. “wama $44 + 8$, ndidibanise 6 kuma 44 ndizofumana 50, ndandule ukudibanisa isi-2 impendulo ngama-52”.

Xelela abafundi bangabali ngoono-1.

Nika abagqibe kuqala ukuba baziqhelanise:

$43 + 8$ $67 + 6$ $84 + 7$

UKUBALA NGAMASHUMI: ISIFUNDO ESIQALAYO 4

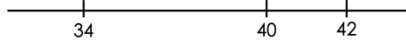
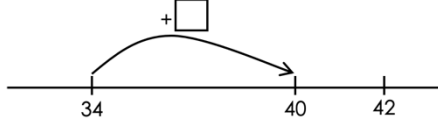
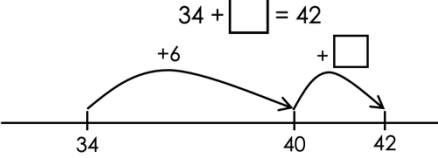
Umzuzu om-1 ubalo ngeNtloko

libhondi ze-10: Izivakalisi zamanani ezisuka kwidayagram.

<p>Utishala: Le yidayagram kwaye ibonisa ukuba isi-7 kunye nesi-3 zenz i-10.</p> <p>Utishala: 7 dibanisa bani ufumane i-10?</p> <p>Abafundi: 3</p> <p>Utishala: Ngoku, 3 dibanisa bani ufumane i-10?</p> <p>Abafundi: 7</p> <p>Utishala ukhomba ubalo ngalunye ebhodini ze abafundi banike inani elishiyiweyo.</p> <p>Qhubeka ubuza abafundi, ngomlomo, imizekelo emininzi usebenzisa iibhondi zeshumi:</p> <p style="padding-left: 20px;">1 + nabani li 10? Ngoku 9 + nabani li 10?</p> <p style="padding-left: 20px;">2 + nabani li 10? Ngoku 8 + nabani li 10?</p> <p style="padding-left: 20px;">6 + nabani li 10? Ngoku 4 + nabani li 10?</p>	<p>Bhala oku kulandelayo ebhodini:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50px;">7</td> <td style="text-align: center; width: 50px;">3</td> </tr> <tr> <td colspan="2" style="text-align: center; border-top: 1px solid black;">10</td> </tr> </table> <p>Bhala ebhodini le mizekelo:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 30px;">2</td> <td style="text-align: center; width: 30px;">8</td> <td style="width: 20px;"></td> <td style="text-align: center; width: 30px;">6</td> <td style="text-align: center; width: 30px;">4</td> </tr> <tr> <td colspan="2" style="text-align: center; border-top: 1px solid black;">10</td> <td></td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">10</td> </tr> </table> <p>2 + <input style="width: 20px;" type="text"/> = 10</p> <p>8 + <input style="width: 20px;" type="text"/> = 10</p> <p><input style="width: 20px;" type="text"/> + 4 = 10</p> <p>4 + <input style="width: 20px;" type="text"/> = 10</p>	7	3	10		2	8		6	4	10			10	
7	3														
10															
2	8		6	4											
10			10												

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokubala ngamashumi ukuze sifumane inani elishiyiweyo kubalo ngokudibanisa.

<p>Sebenzisa ubalo ngamashumi ukusombulula $34 + \square = 42$.</p> <p>Zoba umgca manani obonisa '34' kunye '42'.</p> <p>Utishala: Ngubani olulandelayo uphinda-phindo lweshumi emva kwama-34?</p> <p>Abafundi: 40</p> <p>Phawula '40' kumgca manani.</p> <p>Utishala: 34 dibanisa nabani ufumane 40?</p> <p>Abafundi: 6</p> <p>Bhala '6' kwibloko engentla komtsi ngokwalendlela kuboniswe ngayo.</p>	<p style="text-align: center;">$34 + \square = 42$</p>  <p style="text-align: center;">$34 + \square = 42$</p>  <p style="text-align: center;">$34 + \square = 42$</p> 
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Kubafundi abasokolayo ngalo mzekelo, babuze, “4 + nabani li-10?”

Abafundi mabakwazi ukuphendula 6’, ngoko ke babonise ukuba yinto enye nalo lonke uphindaphindo lwamashumi:

ngoko: 4 + 6 = 10; 14 + 6 = 20; 24 + 6 = 30; 34 + 6 = 40...

Utishala: Kongezwe bani 40 ze ufumane 42?

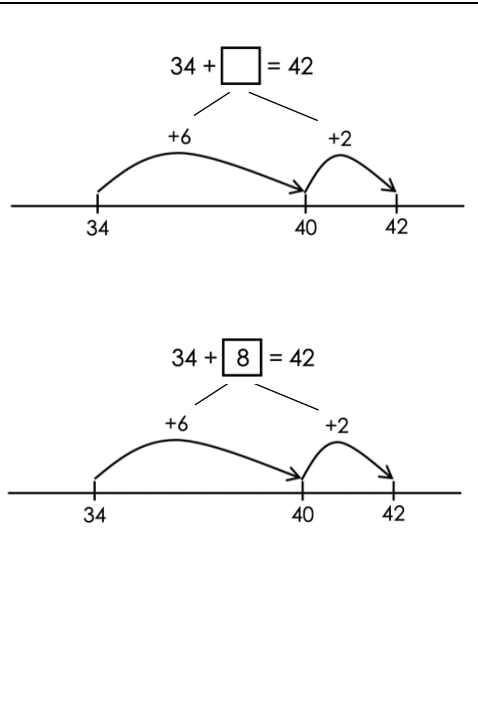
Abafundi: 2

Utishala: Ngubani isi- 6 usidibanise nesi-2? (khomba kwisi- 6 nesi- 2 kwidayagram)

Abafundi: 8

Utishala: Ngoko, kudityaniswe bani kuma 34 ukuze ufumane 42?

Abafundi: 8



Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$28 + \square = 35$ $67 + \square = 72$

Abafundi mabachaze iingcinga zabo, umzekelo. “umzekelo wokuqala, uphindaphindo lweshumi olulandelayo ngama 30, ze ndidibanise 2 ze ndifumane 30 ndandule ukudibanisa isi-5 ukufumana 35. 2 dibanisa 5 impendulo ngu-7.”

Xelela abafundi bangabali ngoono-1.

Umsebenzi wasekhaya: Iphepha lokusebenzela 1

Ekupheleni kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 1.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko.

Ividiyo ezincedisayo



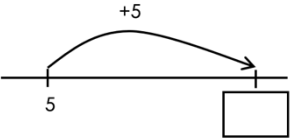
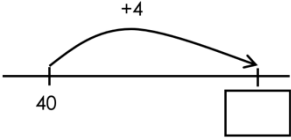
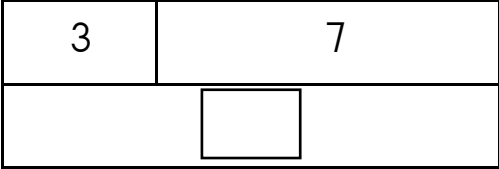
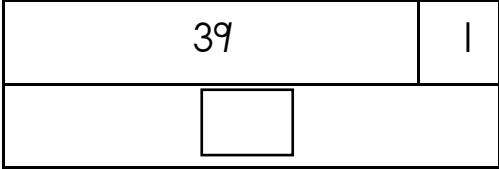
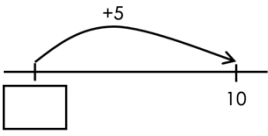
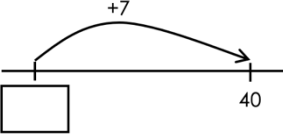
Bridging Through Ten 4



<https://youtu.be/INITWPDMFKY>

Igama:

Ukubala ngamaShumi: Iphepha lokusebenzela I

1. $6 + 4 = \square$	13. $50 + 6 = \square$
2. $1 + 9 = \square$	14. $50 + 4 = \square$
3. 7 ngaphantsi kwe-10 si \square	15. 8 ngaphantsi kwama-30 nga \square
4. $10 = 3 + \square$	16. $20 = 19 + \square$
5. 	17. 
6. 	18. 
7. $10 - 5 = \square$	19. $60 - 4 = \square$
8. $10 - 8 = \square$	20. $60 - 7 = \square$
9. 	21. 
10. $\square + 4 = 10$	22. $\square + 3 = 23$
11. $8 + \square = 10$	23. $30 + \square = 36$
12. 	24. 

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokubala ngamashumi. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

UKUBALA NGAMASHUMI: ISIFUNDO ESIQALAYO 5

Umzuzu om-1 ubalo ngeNtloko

a. Ukutsibela kuphindaphindo lweshumi **phambi**

Asisondezi kwishumi elikufutshane koko sitsibela kuphindaphindo lweshumi **phambi** kumgca manani.

“Ndinike uphindaphindo lweshumi oluphambi ...”

Utishala: 26 → Abafundi: 20

Utishala: 53 → Abafundi: 50 njalo njalo...

b. Thabatha kuphindaphindo lweshumi

“Ngubani ama...?”

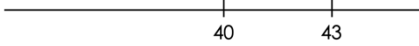
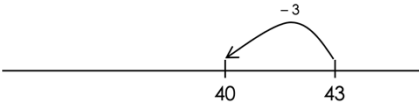
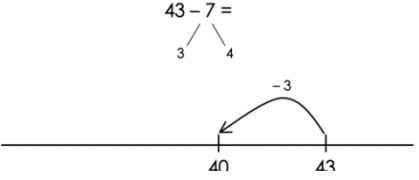
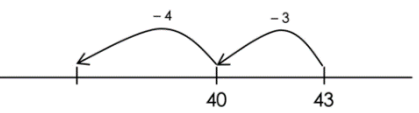
Utishala: 30 – 6 → Abafundi: 24

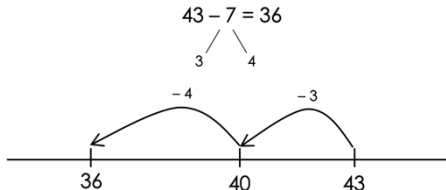
Utishala: 50 – 2 → Abafundi: 48

Utishala: 70 – 5 → Abafundi: 65 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokubala ngamashumi ukusombulula ubalo lokuthabatha.

<p>Ingxaki: $43 - 7$ Bhala ‘$43 - 7 =$’ ebhodini. Zoba umgca uphawule kwindawo ebhalwe ‘43’. Utishala: Siyathabatha ngoko kufuneka sitsibe sibuya umva. Ngubani uphindaphindo lweshumi phambi 43? Abafundi: 40 Umfundi makeze azokuphawula umgca.</p>	<p style="text-align: center;">$43 - 7 =$</p> 
<p>Utishala: Kufuneka sitsibe kasi- 7 sibuya umva. Masenze umtsi ubemnye kuphindophindo lweshumi kunokuba sibale sibuya umva ngoono 1. 43 thabatha bani ufumane 40? Abafundi: 3</p>	<p style="text-align: center;">$43 - 7 =$</p> 
<p>Abafundi: Sithabathe isi-3. Kufuneka sithabathe isixhenxe. 7 wohlulwa abengu 3 kunye nabani? Abafundi: 4 Hlula 7 kuma $43 - 7$ kwi 3 nesi 4. Utishala: Zininzi kangakanani ekufuneka sizithabathile? Abafundi: 4</p>	<p style="text-align: center;">$43 - 7 =$</p>  <p style="text-align: center;">$43 - 7 =$</p> 

<p>Utishala: Ngubani ama 40 thabatha 4? Abafundi: 36 Utishala: Ke, $43 - 7 = 43 - 3 - 4 = 36$. Bhala isisombululo kumgca manani.</p>	
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$54 - 6$ $63 - 5$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $54 - 6$, ndithabathe 4 kuma 54 ndizofumana 50, ndandule ukuthabatha isi-2, ke impendulo ngama 48.”

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukwenza oku ngezentloko bangazoba umgca manani ukuze bancedakale.

lividiyo ezincedisayo

Bridging Through Ten 5



<https://youtu.be/-bQNTOPly7I>

lividiyo ezincedisayo

Bridging Through Ten 6



<https://youtu.be/JvNKtAdrzm>

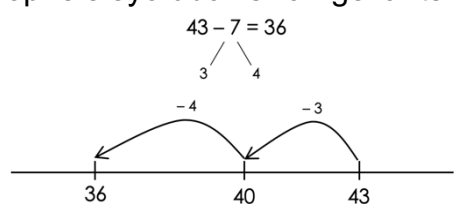
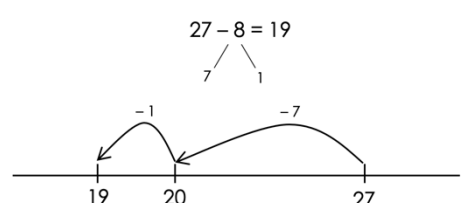
UKUBALA NGAMASHUMI: ISIFUNDO ESIQALAYO 6

Umzuzu om-1 ubalo ngeNtloko

- a. Tsibela kuphindaphindo lweshumi **phambi** (umzekelo. $23 \rightarrow 20$; $56 \rightarrow 50$)
- b. Thabatha kuphindaphindo lweshumi (umzekelo. $30 - 3 \rightarrow 27$; $40 - 6 \rightarrow 34$)

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokubala ngamashumi ukusombulula ubalo lokuthabatha.

<p>Buza abafundi ukuba bazame ukukhumbula okwayizolo: Sisombulule njani kanene $43 - 7$?</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe '43'.</p> <p>Vumela abafundi ukuba bachaze indlela yokusombulula nendlela esebenza ngayo, kwaye bakubonise oko ebhodini.</p>	<p>Umfanekiso wokugqibela ophelileyo uboniswa ngezantsi :</p> 
<p>Ngoku, bonisa ebhodini ukuba ubala njani ngamashumi: $27 - 8$</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe '27' ze usombulule ingxaki usebenzisa indlela yokubala ngamashumi.</p>	<p>Umfanekiso wokugqibela ophelileyo uboniswa ngezantsi:</p> 

Umsebenzi womfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*: $35 - 7$

Abafundi mabachaze iingcinga zabo, umzekelo. "ama $35 - 7$, ndiwenzile $35 - 5$ ndafumana 30 ze ndathabatha 2 impendulo ngama-28."

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukwenza oku ngezentloko bangazoba umgca manani ukuze bancedakale.

Nika abagqibe kuqala omnye umsebenzi wokuziqhelanisa:

$42 - 8$

$62 - 6$

$84 - 7$

lividiyo ezincedisayo

Bridging Through Ten 7



https://youtu.be/npm_pVwiXD4

UKUBALA NGAMASHUMI: ISIFUNDO ESIQALAYO 7

Umzuzu om-1 ubalo ngeNtloko

- a. Tsibela kuphindaphindo lweshumi **phambi** (umzekelo. $23 \rightarrow 20$; $56 \rightarrow 50$)
- b. Thabatha kuphindaphindo lweshumi (umzekelo. $30 - 3 \rightarrow 27$; $40 - 6 \rightarrow 34$)

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokubala ngamashumi ukusombulula ubalo lokuthabatha.

<p>Bonisa ebhodini ukuba ubala njani ngamashumi: $35 - 8$</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe '35'.</p> <p>Sombulula ingxaki usebenzisa indlela yokubala ngamashumi.</p>	<p>Umfanekiso wokugqibela ophelileyo uboniswa ngezantsi:</p> <div style="text-align: center;"> $35 - 8 = 27$ $\begin{matrix} 5 & 3 \end{matrix}$ </div>
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$25 - 8$ $36 - 7$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $25 - 8$, ndiyenzile $25 - 5$ ndafumana 20 ze ndathabatha 3 impendulo li-17.”

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukwenza oku ngezentloko bangazoba umgca manani ukuze bancedakale.

Nika abagqibe kuqala omnye umsebenzi wokuziqhelanisa:

$73 - 6$ $142 - 8$ $81 - 4$



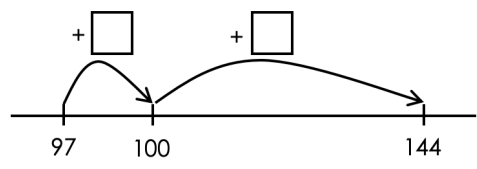
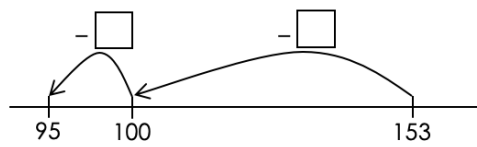
Umsebenzi wasekhaya: Iphepha lokusebenzela 2

Ekupheleni kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 2.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko.

Igama:

Ukubala ngamaShumi: Iphepha lokusebenzela 2

1. $45 + 8 = \square$	
2. $54 - 6 = \square$	
3. $26 + \square = 34$	
4. $27 + \square = 27 + 3 + 5$	
5. $32 + 9 = 32 + 8 + \square$	
6. $67 + 6 = 67 + 3 + \square$	
7. $44 + \square = 44 + 6 + 23$	
8. $32 - \square = 32 - 2 - 5$	
9. 	
$97 + \square + \square = 144$	
10. 	
$153 - \square - \square = 95$	

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokubala ngamashumi. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

UKUBALA NGAMASHUMI: ISIFUNDO ESICALAYO 8

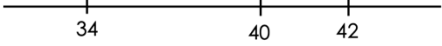
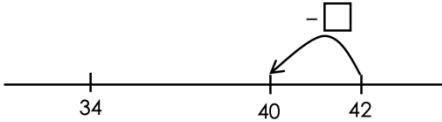
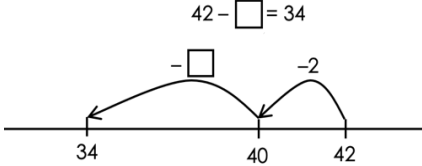
Umzuzu om-1 ubalo ngeNtloko

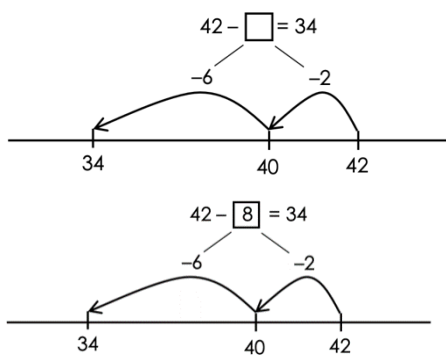
libhondi ze-10: Izivakalisi zamanani ezisuka kwidayagram

<p>Utishala: Le yidayagram ebonisa ukuba isi 7 kunye nesi 3 zenza 10.</p> <p style="text-align: center;">Singabona kwakhona ukuba $10 - 7 = 3$ ngokujonga kwidayagram.</p> <p>Utishala: Ke 10 thabatha 3?</p> <p>Abafundi: 7</p> <p>Utishala: Ngoko, 10 thabatha bani ufumane 7?</p> <p>Abafundi: 3</p> <p>Utishala ukhomba kubalo ngalunye ebhodini ze abafundi banike inani elishiyiweyo.</p> <p>Qhubeka ubuza abafundi, ngomlomo, eminye imizekelo usebenzisa iibhondi zeshumi:</p> <p style="padding-left: 20px;">10 thabatha bani ufumane 1? 10 thabatha bani ufumane 9?</p> <p style="padding-left: 20px;">10 thabatha bani ufumane 2? 10 thabatha bani ufumane 8?</p> <p style="padding-left: 20px;">10 thabatha bani ufumane 4? 10 thabatha bani ufumane 6?</p>	<p>Bhala oku kulandelayo ebhodini:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 50px; height: 40px;">7</td> <td style="width: 50px; height: 40px;">3</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black; border-bottom: 1px solid black;">10</td> </tr> </table> <p>Lungisa ebhodini le mizekelo:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 30px; height: 20px;">2</td> <td style="width: 30px; height: 20px;">8</td> <td style="width: 30px; height: 20px;">6</td> <td style="width: 30px; height: 20px;">4</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black; border-bottom: 1px solid black;">10</td> <td colspan="2" style="border-top: 1px solid black; border-bottom: 1px solid black;">10</td> </tr> </table> <p>$10 - \square = 6$</p> <p>$10 - \square = 4$</p> <p>$10 - \square = 2$</p> <p>$10 - \square = 8$</p>	7	3	10		2	8	6	4	10		10	
7	3												
10													
2	8	6	4										
10		10											

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokubala ngamashumi ukuze sifumane inani elishiyiweyo kubalo ngokudibanisa.

<p>Sebenzisa ukubala ngamashumi ukusombulula $42 - \square = 34$</p> <p>Zoba umgca manani obonisa '42' kunye '34'.</p> <p>Utishala: Ngubani olulandelayo uphinda-phindo lweshumi phambi 42?</p> <p>Abafundi: 40</p> <p>Phawula '40' kumgca manani.</p> <p>Utishala: 42 thabatha bani ufumane 40?</p> <p>Abafundi: 2</p> <p>Bhala '2' kwibloko engentla komtsibo.</p> <p>Utishala: Sithatha ntoni kuma 40 ukuze sifumane 34?</p> <p>Abafundi: 6</p>	<p style="text-align: center;">$42 - \square = 34$</p>  <p style="text-align: center;">$42 - \square = 34$</p>  <p style="text-align: center;">$42 - \square = 34$</p> 
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<p>Ukuba abafundi bayasokola ngulo mzekelo, babuze “10 thabatha bani ufumane 4?”</p> <p>Abafundi bamele ukwazi ukuphendula ‘6’, ke babonise ukuba yinto enye kulo lonke uphinda-phindo lwamashumi;</p> <p>ke: $10 - 6 = 4$; $20 - 6 + 14$; $30 - 6 = 24$; $40 - 6 = 34$ njalo njalo.</p> <p>Utishala: Ngubani 6 dibanisa 2? (khomba kwisi 6 kunye 2 kwidayagram)</p> <p>Abafundi: 8</p> <p>Utishala: Ke, 42 thabatha bani ufumane 34?</p> <p>Abafundi: 8</p>	
--	--

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$35 - \square = 28$ $72 - \square = 67$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $35 - \square = 28$, uphinda-phindo lweshumi phambi kwama 35 ngu 30, ngoko ndithabatha 5 ukufumana 30 ndandule ukuthabatha isi-2 ukufumana 28. 5 dibanisa 2 impendulo sisi-7.”

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukwenza oku ngezentloko bangazoba umgca manani ukuze bancedakale.

Ividiyo encedisayo

Bridging Through Ten 8



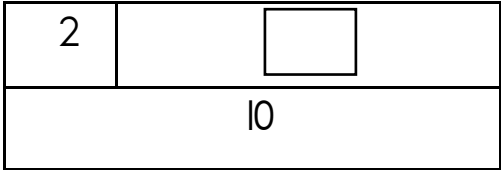
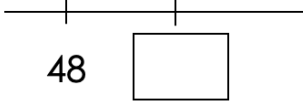
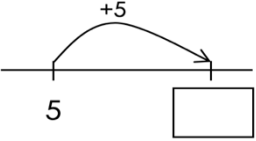
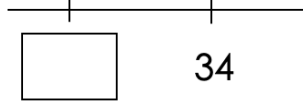
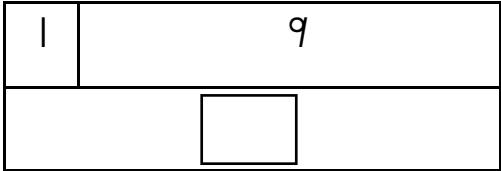
<https://youtu.be/9YSloijDOso>

Igama:

Ukubala ngamaShumi: Emva kovavanyo

ICANDELO 1

Imizuzu 2 kweli phepha

1. $6 + 4 = \square$	11. $50 + 7 = \square$
2. $2 + 8 = \square$	12. $3 + 60 = \square$
3. $10 = 7 + \square$	13. $40 - 7 = \square$
4. 8 mncinci kangakanani kwi -10 \square	14. $40 + 8 = \square$
5. 	5. Ngubani uphindaphindo lwe-10? 
6. 	6. $100 + 27 = \square$
7. $10 - 5 = \square$	7. Ngubani uphindaphindo lwe-10 phambi kwama -34? 
8. $10 - 3 = \square$	8. $\square + 8 = 50$
9. 	9. $30 - \square = 27$
10. $\square + 10 = 10$	20. $87 = 80 + \square$

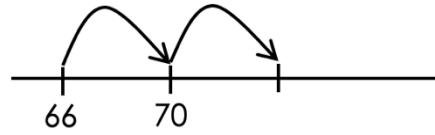
Itotali 20

Ukubala ngamaShumi: Emva kovavanyo

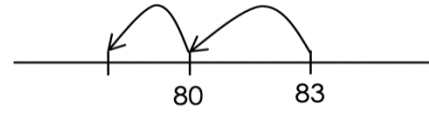
ICANDELO 2

Imizuzu 3 kweli phepha

1. $66 + 8 = \square$



2. $83 - 5 = \square$



3. $93 - 7 = \square$

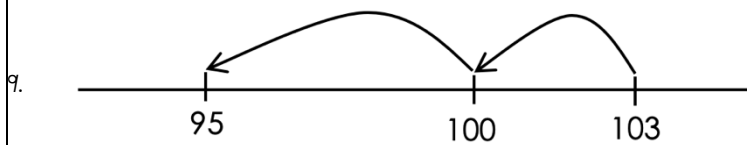
4. $67 + \square = 73$

5. $\square + 7 = 82$

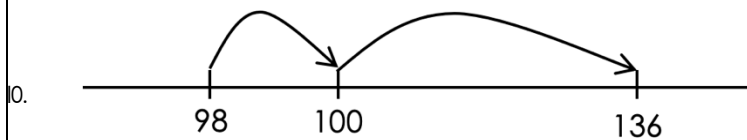
6. $67 + 5 = 67 + 3 + \square$

7. $94 - \square = 94 - 4 - 2$

8. $98 + 56 = 98 + 2 + \square$



$103 - \square = 95$



$98 + \square = 136$

Itotali 10

INDLELA YOKWENZA UTSIBO

Intshayelelo

Kwezi zifundo zine zokuqala injongo kukugxila ekudibaniseni usebenzisa indlela yokwenza utsibo. Kwezi landelayo izifundo zokuqala ezine, kuzakugxilwa ekuthabatheni usebenzisa indlela yokwenza utsibo. Eminye imisebenzi ikhokelwa ngutishala ebhodini eminye yeyabafundi ukuba bazenzele ngokwabo.

Izakhono zokukhumbula ngokukhawuleza

Kuneendlela ezintandathu zezakhono zokukhumbula ngokukhawuleza ekufuneka abafundi bezifundile zendlela zokwenza utsibo:

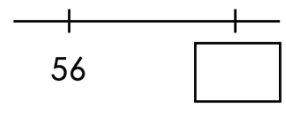
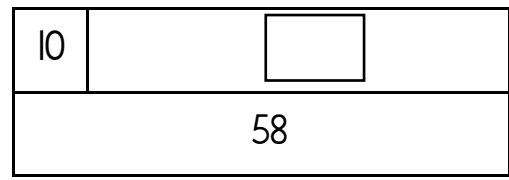
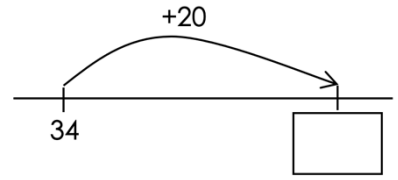
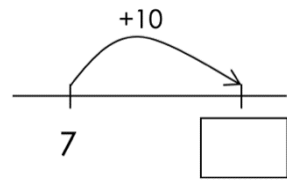
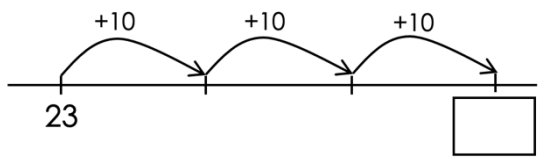
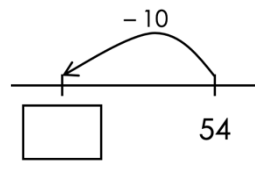
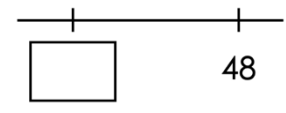
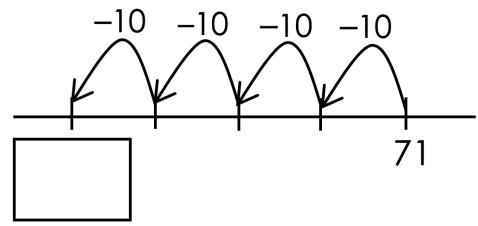
- Sukela ukubala okanye bala uqala ngemva ngama 10 ukusuka nakweliphi inani (umzekelo. 12, 22, 32, okanye 57, 47, 37, ...)
- Dibanisa okanye uthabathe ama10 ukusuka nakweliphi inani (umzekelo. $43 + 10 = 53$ okanye $89 - 10 = 79$)
- dibanisa uphinda-phindo lweshumi nakweliphi na inani (umzekelo. $61 + 20 = 81$)
- thabatha uphinda-phindo lweshumi nakweliphi na inani (umzekelo. $46 - 30 = 16$)
- tsibela kuphinda-phindo lweshumi olulandelayo emveni kwenani (umzekelo. $32 \rightarrow 40$)
- tsibela kuphinda-phindo lweshumi olulandelayo phambi kwenani (umzekelo. $56 \rightarrow 50$)

Igama:

Indlela yokwenza utsibo: Phambi kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

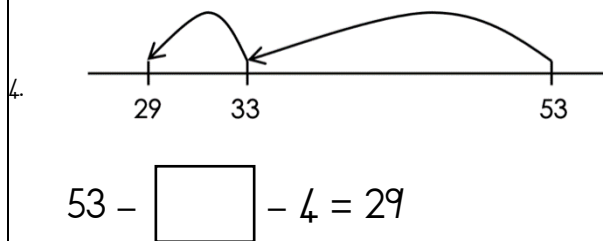
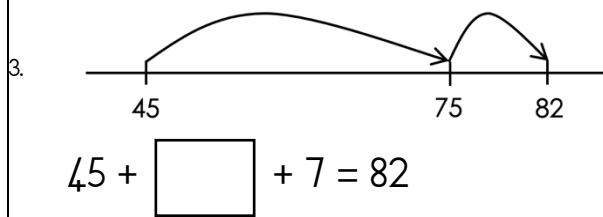
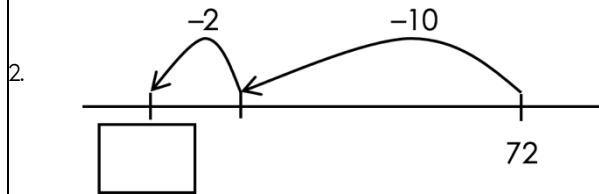
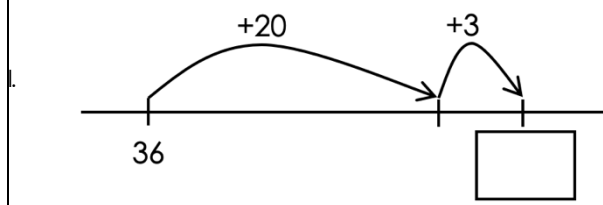
1. Fakela inani elishiyiweyo. 14, 24, 34, 44, <input type="text"/>	1. Ngubani uphindaphindo lwe-10 olulandelayo?
2. Fakela inani elishiyiweyo. 79, 69, 59, 49, <input type="text"/>	
3. $6 + 30 =$ <input type="text"/>	2. 
4. $57 - 10 =$ <input type="text"/>	3. 
5. 	4. $16 + 30 =$ <input type="text"/>
6. 	5. Ngubani uphindaphindo lwe-10 phambi kwama 48?
7. 	
8. $36 +$ <input type="text"/> $= 40$	6. $79 - 40 =$ <input type="text"/>
9. 	7. $38 -$ <input type="text"/> $= 18$
10. $31 - 20 =$ <input type="text"/>	8. <input type="text"/> $- 20 = 69$
	9. $37 +$ <input type="text"/> $= 77$
	20. <input type="text"/> $+ 20 = 66$

Itotali 20

Indlela yokwenza utsibo: Phambi kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha



5.

$$57 + 26 = \square$$

6.

$$83 - 24 = \square$$

7.

$$19 + \square = 41$$

8.

$$62 - \square = 47$$

9.

$$61 - 32 = 61 - \square - 2$$

10.

$$74 - \square = 74 - 20 - 5$$

Itotali 10

INDLELA YOKWENZA UTSIBO: ISIFUNDO ESIQALAYO 1

Umzuzu om-1 ubalo ngeNtloko

a. Biyela igumbi lokufundela kali-10 ngaphezulu (ungatshintsha tshintsha ngokuba baphendule bonke)

Utishala ubiza inani ze abafundi baphendule biyela igumbi lokufundela kali-10 ngaphezulu kunenani lokugqibela.

Utishala: 16

Umfundi 1: 26 → Umfundi 2: 36 → Umfundi 3: 46 → Umfundi 4: 56 njalo njalo.

b. igumbi lokufundela kali- 10 ngaphantsi (ungatshintsha tshintsha ukuba baphendule bonke)

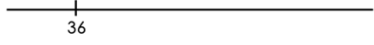
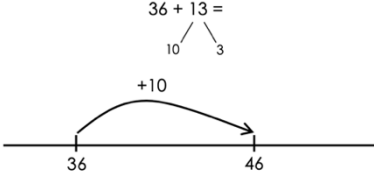
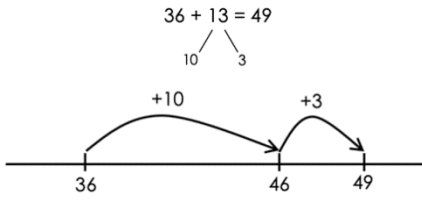
Utishala ubiza inani ze abafundi baphendule biyela igumbi lokufundela kali-10 ngaphantsi kunenani lokugqibela.

Utishala: 128

Umfundi1: 118 → Umfundi 2: 108 → Umfundi 3: 98 → Umfundi 4: 88 njalo njalo.

Ulandelelwano lomsebenzi

Kwesi sifundo sazisa indlela zokwenza utsibo ukusombulula iingxaki zokudibanisa.

<p>Ingxaki: $36 + 13$</p> <p>Bhala '$36 + 13 =$' ebhodini.</p> <p>Beka 36 kufutshane nokuqala komgca (kuba ukudibanisa kuthetha ukuba sakube sithsiba sibheka phambili).</p>	<p style="text-align: center;">$36 + 13 =$</p> 
<p>Utishala: Kufuneka sithsibe kali-13 sisiya phambili. Masicalule i-13 libe 10 ne 3. Ngubani $36 + 10$?</p> <p>Abafundi: 46</p> <p>Zoba +10 umtsi, uyokuhlala kuma 46.</p>	<p style="text-align: center;">$36 + 13 =$</p> <p style="text-align: center;">10 3</p> <p style="text-align: center;">+10</p> 
<p>Utishala: Sisafuneka sithsibe 3 sisiya phambili. Ngubani 46 dibanisa 3?</p> <p>Abafundi: 49</p> <p>Bhala kumgca manani ngale Ndelela ibonisiweyo.</p> <p>Utishala: Silandela la manyathelo:</p> <ul style="list-style-type: none"> • Sibeka inani lokuqala • Sicalula inani lesibini eli silongezayo • Sithsiba amashumi nemivo • Sinika impendulo <p>Utishala: Ke $36 + 13$ uyafana nama $36 + 10 + 3 = 49$ kuba songeze i-13 ngokuqala sidibanise i-10, ze isi- 3.</p> <p>Bhala isivakalisi samanani ngokwendlela ebonisiweyo.</p>	<p style="text-align: center;">$36 + 13 = 49$</p> <p style="text-align: center;">10 3</p> <p style="text-align: center;">+10 +3</p>  <p style="text-align: center;">$36 + 10 + 3 = 49$</p>

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$64 + 12 \quad 24 + 15$$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $64 + 12$, ndidibanise i 10 kuma 64 ze ndifumane 74, ndandule ukudibanisa isi-2, impendulo ngama 76.”

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukwenza oku ngezentloko bangazoba umgca manani ukuze bancedakale.

Ividiyo encedisayo

Jump Strategies 1



<https://youtu.be/FPTVoIFFd3k>

INDLELA YOKWENZA UTSIBO: ISIFUNDO ESIQALAYO 2

Umzuzu om-1 ubalo ngeNtloko

IPop Fiz: 10 ngaphezulu okanye 10 ngaphantsi

a. Utishala uthi 'pop', abafundi ze bathi 'fiz'; utishala ubiza inani, abafundi baphendula nge **10 ngaphezulu** (okanye uphindaphindo lwe-10 ngaphezulu):

Utishala: pop	→	Abafundi: fiz	
Utishala: 3	→	Abafundi: 13	
Utishala: pop	→	Abafundi: fiz	
Utishala: 53	→	Abafundi: 63	njalo njalo...

b. Utishala uthi 'pop', abafundi ze bathi 'fiz'; utishala ubiza inani, abafundi baphendula nge **10 ngaphantsi** (okanye uphindaphindo lwe-10 ngaphantsi):

Utishala: pop	→	Abafundi: fiz	
Utishala: 49	→	Abafundi: 39	
Utishala: pop	→	Abafundi: fiz	
Utishala: 78	→	Abafundi: 68	njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sazisa indlela zokwenza utsibo ukusombulula iingxaki zokudibanisa.

<p>Buza abafundi ukuba bazame ukukhumbula okwayizolo: Besisombulule njani ama $36 + 13$?</p> <p>Qala ngokuzoba umgca ze uphawule indawo ebhalwe '36'.</p> <p>Vumela abafundi bachaze indlela yokusombulula kulo ahleli naye, ze ubuze ababini bayibonise ebhodini.</p> <p>Khumbuza abafundi ngamanyathelo abawafundileyo: beka, calula, tsiba kunye impendulo.</p>	<p>Umfanekiso opheleleyo wokugqibela uboniswe ngezantsi:</p> <div style="text-align: center;"> $36 + 13 = 49$ </div>
<p>Ze, ubonise ebhodini indlela yokusombulula usebenzisa utsibo: $47 + 21$</p> <ul style="list-style-type: none"> • Beka 47 kumgca manani. • Calula ama-21 kuma- 20 kunye no i-1 • Tsiba ama-20 ukuya phambili ze utsibe 1 ukuya phambili. Abanye abafundi bazakwenza imitsi emibini ukubheka phambili yama 10 endaweni yomtsi oya phambili omnye wama-20 – naleyo ilungile. • Nika impendulo. <p>Utishala: Ke, $47 + 21$ uyafana nama $47 + 20 + 1 = 68$</p>	<p>Umfanekiso opheleleyo wokugqibela uboniswe ngezantsi :</p> <div style="text-align: center;"> $47 + 21 = 68$ </div> <p style="text-align: center;">$47 + 20 + 1 = 68$</p>

Bhala isivakalisi samanani ngale ndlela ibonisiweyo.	
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$43 + 24 \quad 31 + 25$$

Abafundi mababonise iingcinga zabo, umzekelo. “ama $43 + 24$, ndidibanisa 20 ukufumana 63, ndandule ukudibanisa isi-4, impendulo ngama 67.”

Xelela abafundi bangabali ngoono-1.

Ividiyo encedisayo

Jump Strategies 2



<https://youtu.be/6RkP5bSpINQ>

Ividiyo encedisayo

Jump Strategies 3



<https://youtu.be/JAGey218ADw>

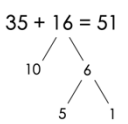
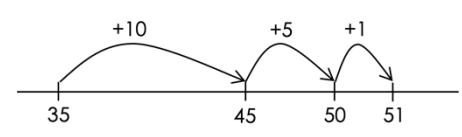
INDLELA YOKWENZA UTSIBO: ISIFUNDO ESICALAYO 3

Umzuzu om-1 ubalo ngeNtloko

IPop-Fiz: 10 ngaphezulu kunye 10 ngaphantsi; 20 ngaphezulu kunye 20 ngaphantsi

Ulandelelwano lomsebenzi

Kwesi sifundo songeza indlela yokwenza imitsi sifakela inyathelo lokubala ngamashumi.

<p>Bonisa ebhodini indlela yokusombulula ngokusebenzisa indlela yotsibo: $35 + 16$</p> <p>Bhala isivakalisi samanani ebhodini ze uzobe umgca manani ongenanto.</p> <ul style="list-style-type: none"> • Beka 35 kumgca manani. • Calula i-16 libe li-10 nesi-6 • Tsiba kali-10 ubheka phambili ukuze ufikelele kuma-45. Tsiba ezi-6 ezishiyekileyo ngokuvala umsantsa wophindaphindo olulandelayo lwe-10 (ngama- 50). Ngoko ke isi- 6 kufuneka sicaluliwe sibengu 5 kunye 1. Tsiba usiya phambili isi-5 kunye ne-1. • Nika impendulo. <p>Utishala: Ngoko $35 + 16$ uyafana nama $35 + 10 + 6 = 51$ okanye $35 + 10 + 5 + 1 = 51$.</p> <p>Bhala isivakalisi samanani ngale ndlela ibonisiweyo.</p>	<p>Umfanekiso opheleleyo wokugqibela uboniswe ngezantsi:</p> <div style="text-align: center;"> $35 + 16 = 51$  </div> <div style="text-align: center;">  </div> <div style="text-align: center;"> $35 + 10 + 6 = 51$ $35 + 10 + 5 + 1 = 51$ </div>
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$39 + 23$ $68 + 35$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama $39 + 23$, ndongeze 20 kuma 39 ukufumana 59, ndandule ukudibanisa u-1 ze ndifumane ama 60, ze ke isi-2, impendulo ngama 62.”

Xelela abafundi bangabali ngoono-1.

Nika abo bagqiba kuqala omnye umsebenzi wokuziqhelanisa:

$36 + 28$ $47 + 34$

INDLELA YOKWENZA UTSIBO: ISIFUNDO ESIQALAYO 4

Umzuzu om-1 ubalo ngeNtloko

Ukutsibela kuphindaphindo lweshumi **olulandelayo**

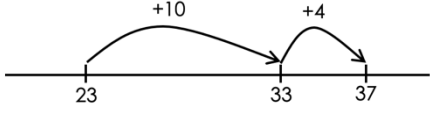
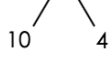
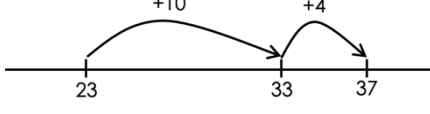
Oku asikokufikelela kwishumi elikufutshane koko kukutsibela kuphindaphindo lweshumi **olulandelayo** kumgca manani.

“Ngubani uphindaphindo lweshumi **olulandelayo emva...?**”

Utishala: 47 → Abafundi: 50
 Utishala: 55 → Abafundi: 60
 Utishala: 32 → Abafundi: 40 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokwenza utsibo ukusombulula ingxaki yenani elishiyiweyo.

<p>Bonisa ebhodini indlela yokusombulula usebenzisa indlela yokwenza utsibo $23 + \square = 37$ ngale ndlela:</p> <p>Bhala isivakalisi samanani ebhodini ze uzobe umgca manani ongenanto.</p> <p>Beka '23' kumgca manani.</p> <p>Utishala: Kufuneka sitsibele phambili siye kuma 37.</p> <p>Phawula 37 kumgca manani.</p> <p>Utishala: Mingaphi imitsi yamashumi, kwaye mingaphi eyemivo, ekufuneka siyenze?</p> <p>Abafundi: Tsiba ukuze ufike kuma -33 ze utsibe ka- 4 ukuze ufike kuma -37.</p> <p>Zoba le mitsi kumgca manani.</p> <p>Utishala: Sitsibe kangakanani?</p> <p>Abafundi: 14</p> <p>Bhala 14 eblokweni.</p> <p>Utishala: Ngoko $23 + 10 + 4$ uyafana nama $23 + 14 = 37$.</p>	$23 + \square = 37$  $23 + \boxed{14} = 37$  
--	---

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$45 + \square = 67 \quad 67 + \square = 81$$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama $45 + \square = 67$, ndongeze ama 20 kuma 45 ukufumana ama 65, ndandule ukudibanisa isi- 2 ukufumana ama- 67, impendulo ngama- 22.”

Xelela abafundi bangabali ngoono-1.

Nika abo bagqiba kuqala omnye umsebenzi wokuziqhelanisa:

$$45 + \square = 68 \quad 67 + \square = 83$$

Umsebenzi owenzelwa ekhaya – Iphepha lokusebenzela 1

Ukuphela kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 1.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko.

Ividiyo encedisayo

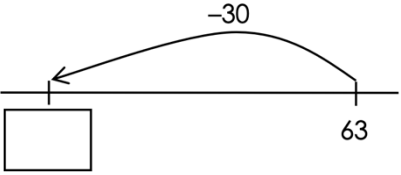
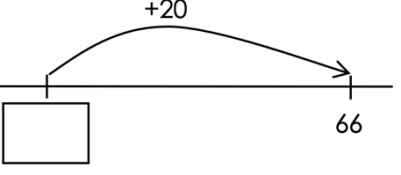

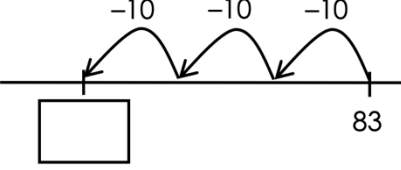
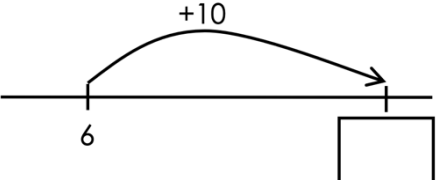
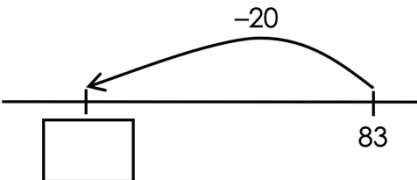
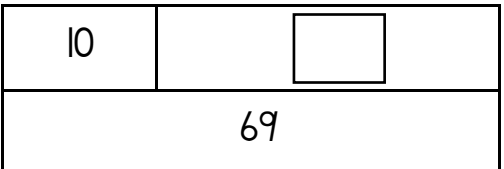
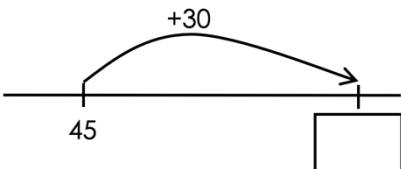
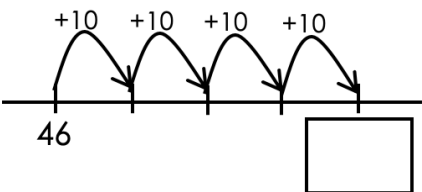
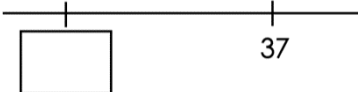
Jump Strategies 4



<https://youtu.be/A9vFXHWkzUo>

Igama:

Indlela yokwenza utsibo: Iphepha lokusebenzela I

<p>1. $75 - 10 = \square$</p>	<p>11. $14 + 50 = \square$</p>
<p>2. </p>	<p>12. </p>
<p>3. 17 27 37 \square 57</p>	<p>13. 86 76 66 56 \square</p>
<p>4. $47 + \square = 50$</p>	<p>14. $68 - \square = 8$</p>
<p>5. Ngubani uphindaphindo olulandelayo lwe-10?</p> <p></p>	<p>15. </p>
<p>6. </p>	<p>16. </p>
<p>7. $52 - 20 = \square$</p>	<p>17. $4 + 50 = \square$</p>
<p>8. </p>	<p>18. </p>
<p>9. </p>	<p>19. Ngubani uphindaphindo lwe-10 phambi kwama-37?</p> <p></p>
<p>10. $45 + \square = 85$</p>	<p>20. $97 - 60 = \square$</p>

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kwindlela yokwenza utsibo. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Jump Strategies 5



<https://youtu.be/dFV5gmY68Sc>


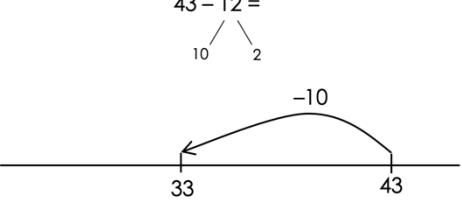
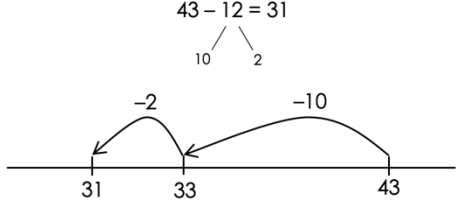
INDLELA YOKWENZA UTSIBO: ISIFUNDO ESIQALAYO 5

Umzuzu om-1 ubalo ngeNtloko

- a. Biyela igumbi lokufundela kali-10 ngaphezulu
- b. Biyela igumbi lokufundela kali-10 ngaphantsi

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokwenza utsibo ukusombulula ubalo ngokuthabatha.

<p>Ingxaki: $43 - 12$</p> <p>Bhala '43 - 12 =' ebhodini.</p> <p>Beka '43' kufutshane nokuphela komgca (ngoba ukuthabatha kuthetha ukuba sakutsiba sibuya umva).</p>	<p style="text-align: center;">$43 - 12 =$</p> 
<p>Utishala: Kufuneka sitsibe kangange-12 sibuya umva. Masicalule-12 senze 10 kunye 2. Ngubani ama 43 - 10?</p> <p>Abafundi: 33</p> <p>Yenza imitsi ibeli-10, uyokuhlala kuma-33.</p>	<p style="text-align: center;">$43 - 12 =$</p> 
<p>Utishala: Sisafuneka sitsibe ka- 2 sibuya umva. Ngubani ama 33 thabathe 2?</p> <p>Abafundi: 31</p> <p>Bhala kumgca manani ngale ndlela ibonisiweyo.</p> <p>Utishala: Sithabathe i-12 ngokuthabatha i-10 siphinde sithabathe isi-2.</p> <ul style="list-style-type: none"> • Sibeka inani lokuqala • Sicalula inani lesibini • Sitsiba amashumi kunye nemivo (buya umva ngemitsi kuba siyathabatha) • Sinika impendulo <p>Utishala: Ngoko $43 - 12$ uyafana nama $43 - 10 - 2 = 31$. Bhala isivakalisi samanani ngale ndlela ibonisiweyo.</p>	<p style="text-align: center;">$43 - 12 = 31$</p> 

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$62 - 12$ $53 - 11$

Abafundi mabachaze iingcinga zabo, umzekelo, "ama $62 - 12$, ndithabathe 10 kuma 62 ukufumana 52, ndandule ukuthabatha isi-2, impendulo ngama-50."

Xelela abafundi bangabali ngoono-1.

INDLELA YOKWENZA UTSIBO: ISIFUNDO ESIQALAYO 6

Umzuzu om-1 ubalo ngeNtloko

a. Dibanisa i-10 (okanye dibanisa uphindaphindo lwe-10)

Indlela yokwenza iyafana nale'10 ngaphezulu', kodwa ngeli xesha utishala uveza ingxaki ka 'dibanisa 10'.

- Utishala: $16 + 10 \rightarrow$ Abafundi: 26
- Utishala: $84 + 10 \rightarrow$ Abafundi: 94
- Utishala: $96 + 10 \rightarrow$ Abafundi: 106 njalo njalo...

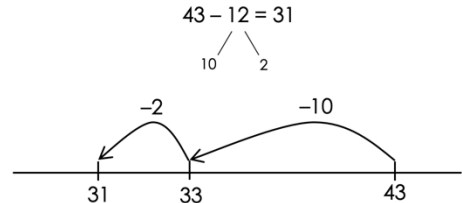
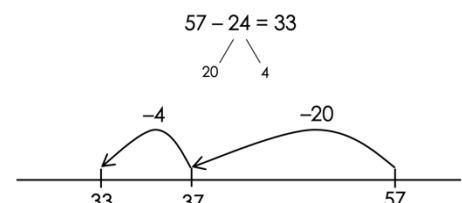
b. Thabatha i-10 (okanye thabatha uphindaphindo lwe-10)

Indlela yokwenza iyafana nale '10 ngaphantsi', kodwa ngeli xesha utishala uveza ingxaki ka thabatha 10'.

- Utishala: $56 - 10 \rightarrow$ Abafundi: 46
- Utishala: $84 - 10 \rightarrow$ Abafundi: 74
- Utishala: $95 - 10 \rightarrow$ Abafundi: 85 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokwenza utsibo ukusombulula ubalo ngokuthabatha

<p>Buza abafundi bazame ukukhumbula okwayizolo: Besisombulule njani ama $43 - 12$?</p> <p>Vumela abafundi bachaze indlela yokusombulula kulo ahleli naye, ze ubuze ababini bayibonise ebhodini.</p> <p>Khumbuza abafundi ngamanyathelo abawafundileyo kwixa eligqithileyo: beka, calula, tsiba(ubuya umva) kunye impendulo</p>	<p>Umfanekiso opheleleyo wokugqibela uboniswe ngezantsi:</p> $43 - 12 = 31$ 
<p>Bonisa ebhodini indlela yokusombulula: $57 - 24$</p> <p>Beka '57' kumgca manani.</p> <p>Calula 24 abe ngama 20 kunye 4.</p> <p>Tsiba ubuya umva ngama-20 ze utsibe ubuya umva ka-4. Abanye abafundi bazakwenza imitsi emibini yamashumi ukubuya umva endaweni yomtsi omnye wama-20 ukubuya umva – naleyo ilungile.</p> <p>Bhala impendulo.</p> <p>Utishala: Ke $57 - 24$ uyafana nama $57 - 20 - 4 = 33$.</p> <p>Bhala isivakalisi samanani ngale ndlela ibonisiweyo.</p>	<p>Umfanekiso opheleleyo wokugqibela uboniswe ngezantsi:</p> $57 - 24 = 33$ 

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$95 - 23$ $43 - 22$

Abafundi mabachaze iingcinga zabo, umzekelo, “ama 95 – 23, ndithabathe 20 kuma 95 ukufumana 75, ndandule ukuthabatha isi-3, impendulo ngama-72.”

Xelela abafundi bangabali ngoono-1.

Abafundi abasokolayo ukwenza oku ngezentloko bangazoba umgca manani ukuze bancedakale.

Ividiyo encedisayo

Jump Strategies 6



<https://youtu.be/JQq2zL6pwCM>

Ividiyo encedisayo

Jump Strategies 7



<https://youtu.be/uFGzuToKGkA>

INDLELA YOKWENZA UTSIBO: ISIFUNDO ESICALAYO 7**Umzuzu om-1 ubalo ngeNtloko**

Tsibela kuphindaphindo lweshumi **phambi**.

Asikokufikelela kwishumi elikufutshane kowa kukutsibela kuphindaphindo lweshumi **phambi** kumgca manani.

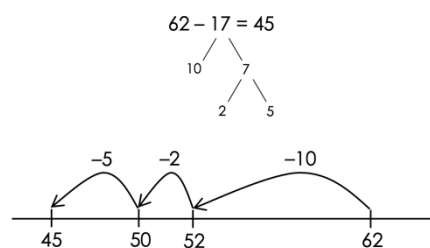
“Ndinike uphindaphindo lweshumi uluza **phambi** ...”

Utishala: 26 → Abafundi: 20

Utishala: 53 → Abafundi: 50 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sandisa indlela yokwenza utsibo sifakela inyathelo lokuvala ngamashumi.

<p>Bonisa ebhodini indlela yokusombulula ukubala ngamashumi: $62 - 17$ Beka '62' kumgca manani ongenanto. Calula ama 17 abe li 10 kunye 7. Tsiba ubuya umva kali 10 ukufika kuma 52. Tsiba ubuya umva ngezishiyekileyo ezisi 7 ngokuvala uphindaphindo lwe 10 phambi (la ngama 50). Ke isi 7 kufuneka sicaluliwe sikunike 2 nesi 5. Tsiba ubuya umva 2 nesi 5. Bhala impendulo.</p>	<p>Umfanekiso opholeleleyo wokugqibela uboniswe ngezantsi:</p>  <p>The diagram illustrates the subtraction $62 - 17 = 45$. It shows a tree diagram where 17 is split into 10 and 7. Below, a number line starts at 62 and moves left to 52 (jump of -10), then to 50 (jump of -2), and finally to 45 (jump of -5).</p>
<p>Utishala: Ke ama $62 - 17$ ayafana nama: $62 - 10 - 7 = 45$ okanye $62 - 10 - 2 - 5 = 45$</p>	<p>$62 - 10 - 7 = 45$ $62 - 10 - 2 - 5 = 45$</p>

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$75 - 18 \quad 93 - 14$$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $75 - 18$, ndithabathe 10 kuma 75 ukufumana ama 65, ndathabatha isi-5 ndafumana ama-60, ndandule ukuthabatha isi-3, impendulo ngama-57”.

Xelela abafundi bangabali ngoono-1.

Ukuba nawuphi umfundi ugqiba le misebenzi ngokukhawuleza, banike eminye bazokuziqhelanisa:

$$73 - 28 \quad 62 - 35$$

Umsebenzi wasekhaya – Iphepha lokusebenzela 2

Ukugqitywa kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 2.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko

Igama:

Indlela yokwenza utsibo: Iphepha lokusebenzela 2

1.	
2.	$45 + 8 = \square$
3.	$64 - 25 = \square$
4.	
5.	$18 + \square = 42$
6.	$73 - \square = 58$
7.	$53 - 24 = 53 - \square - 4$
8.	 $27 + \square + 6 = 63$
9.	 $72 - \square - 3 = 49$
10.	$86 - \square = 86 - 20 - 9$

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokwenza utsibo. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Jump Strategies 8



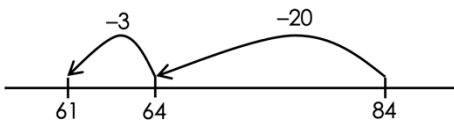
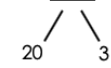
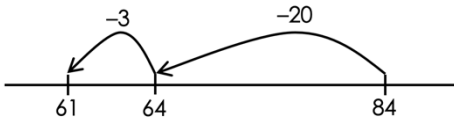
<https://youtu.be/BHC9jDIUdRI>

INDLELA YOKWENZA UTSIBO: ISIFUNDO ESICALAYO 8**Umzuzu om-1 ubalo ngeNtloko**

- a. Tsibela kuphindaphindo lweshumi **phambi**
 b. Thabatha uphindaphindo lweshumi

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokwenza utsibo ukusombulula ingxaki yenani elishiyiweyo.

<p>Ingxaki: $84 - \square = 61$ Beka '84' kumgca manani. Utishala: Kufuneka sitsibele emva siye kuma 61. Phawula '61' kumgca manani. Utishala: Kufuneka sitsibe kangakanani amashumi kunye nemivo? Abafundi: Thabatha 20 ukuya kuma 64 ze uthabathe isi 3 ukuya kuma 61 Zoba le mitsi kumgca manani. Buza: Sitsibe kangakanani ukubuya umva? Abafundi: 23 Bhala impendulo kwibloko. Utishala: Ke $84 - 20 - 3$ uyafana nama $84 - 23 = 61$ Bhala isivakalisi samanani ngale ndlela ibonisiweyo.</p>	<p>$84 - \square = 61$</p>  <p>$84 - \boxed{23} = 61$</p>  
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$75 - \square = 62 \quad 93 - \square = 69$$

Abafundi mabachaze iingcinga zabo, umzekelo. "ama $75 - \square = 62$, ndithabatha 10 ukufumana 65, ndandule ukuthabatha isi-3 ukufumana ama-62, impendulo li-13."

Xelela abafundi bangabali ngoono-1.

Ukuba nawuphi umfundi uwugqiba ngokukhawuleza lomsebenzi, banike omnye baziqhelanise:

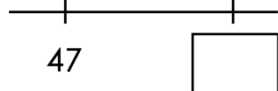
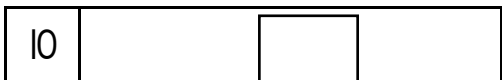

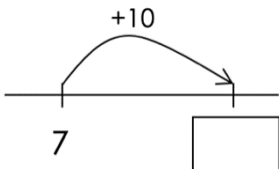
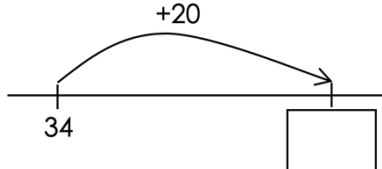
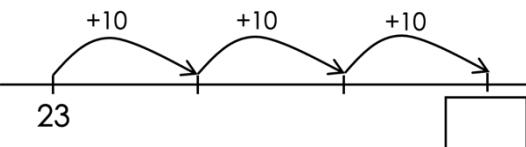
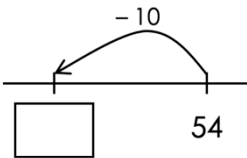
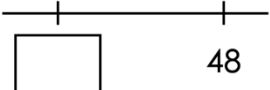
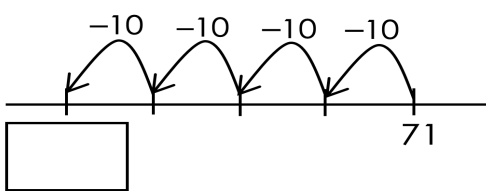
$$75 - \square = 63 \quad 94 - \square = 69$$

Igama:

Indlela yokwenza utsibo: Emva kovavanyo

ICANDELO I

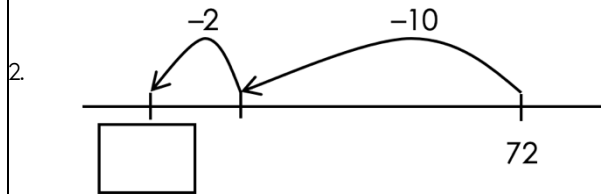
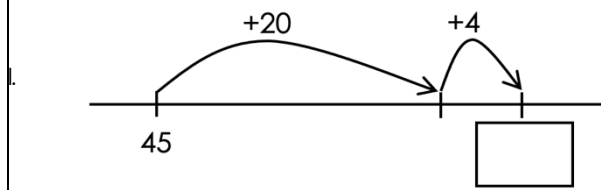
Imizuzu 2 kweli phepha

<p>1. Fakela inani elishiyiweyo. 12, 22, 32, 42, <input type="text"/></p>	<p>11. Ngubani uphindaphindo lwe-10 olulandelayo?</p>
<p>2. Fakela inani elishiyiweyo. 79, 69, 59, 49, <input type="text"/></p>	<p></p>
<p>3. $6 + 30 =$ <input type="text"/></p>	<p>2. </p>
<p>4. $57 - 10 =$ <input type="text"/></p>	<p></p>
<p>5. </p>	<p>3. </p>
<p>6. </p>	<p>4. $16 + 30 =$ <input type="text"/></p>
<p>7. </p>	<p>5. Ngubani uphindaphindo lwe-10 oluphambi kwama-48?</p>
<p>8. $37 +$ <input type="text"/> $= 40$</p>	<p></p>
<p>9. </p>	<p>6. $79 - 40 =$ <input type="text"/></p>
<p>10. $31 - 20 =$ <input type="text"/></p>	<p>7. $38 -$ <input type="text"/> $= 18$</p>
<p>Itotali 20</p>	<p>8. <input type="text"/> $- 20 = 64$</p>
<p></p>	<p>9. $37 +$ <input type="text"/> $= 77$</p>
<p></p>	<p>20. <input type="text"/> $+ 20 = 66$</p>

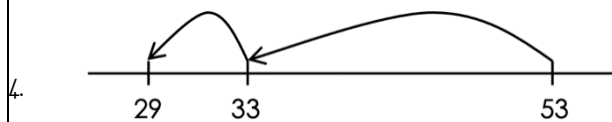
Indlela yokwenza utsibo: Emva kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha



$$45 + \boxed{} + 7 = 82$$



$$53 - \boxed{} - 4 = 29$$

5.

$$57 + 26 = \boxed{}$$

6.

$$83 - 24 = \boxed{}$$

7.

$$19 + \boxed{} = 41$$

8.

$$52 - \boxed{} = 37$$

9.

$$61 - 32 = 61 - \boxed{} - 2$$

10.

$$74 - \boxed{} = 74 - 20 - 5$$

Itotali 10

UKUPHINDA KABINI NEHAFU

Intshayelelo

Kwizifundo zokuqala ezintathu kugxilwa ekukhumbuleni iziphindwa kabini kuyokuma ngokuphinda kabini i-10 kunye neehafu zeziphindwa ukuma kuma-20. Sinxulumanisa oku kukhumbula nolwimi kunye nokumelwa okuphambili kweziphindwa/iihafu. Kwizifundo ezintlanu zokuqala ezilandelayo, sigxila ekusebenziseni ezi zakhono zokukhumbula ukuze zisebenze ezentloko zisebenza iziphindwa kunye neehafu zamanani amakhulu. Eminye yale misebenzi ikhokelwa ngutishala ebhodini ze eminye yeyabafundi bazenzele bengancediswa.

Izakhono zokukhumbula ngokukhawuleza

Kunezakhono zokukhumbula ngokukhawuleza ezintathu ekufuneka abafundi e benazo ukuze bafunde ukuphinda kabini kunye nehafu:

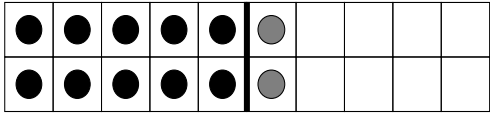
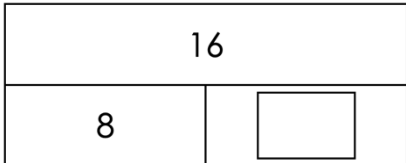
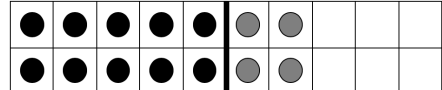
- Iziphindwa ukuya kuphinda kabini ama-10 (umzekelo. phinda kabini 4 ngu 8 okanye phinda kabini 7 li 14);
- iihafu zamanani angenantsalela ukuya kuma 20 (umzekelo. ihafu yesi 6 sisi 3 okanye ihafu ye 18 li 9);
- iziphindwa kunye neehafu zamanani “ahlobeneyo” (umzekelo. phinda kabini 30 ngama 60 okanye ihafu yama 50 ngama 25 okanye Phinda kabini 200 ngama 400).

Igama:

Ukuphinda kabini nehafu: Phambi kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

<p>1.  $6 + 6 = \square$</p>	<p>1. $15 + 15 = \square$</p>
<p>2. Ihafu ye-12 = \square</p>	<p>2. $7 \times 2 = \square$</p>
<p>3. $9 + 9 = \square$</p>	<p>3. Ihafu ye $\square = 7$</p>
<p>4. Phinda kabini 8 = \square</p>	<p>4. Phinda kabini 100 = \square</p>
<p>5. $\square \times 2 = 12$</p>	<p>5. Phinda kabini 20 = \square</p>
<p>6. </p>	<p>6. Ihafu yama $\square = 40$</p>
<p>7. Phinda kabini 10 = \square</p>	<p>7. Ihafu yama-50 = \square</p>
<p>8.  Ihafu ye-14 = \square</p>	<p>8. $16 \div 2 = \square$</p>
<p>9. $10 \div 2 = \square$</p>	<p>9. Ihafu yama-30 = \square</p>
<p>10. Ihafu ye-18 = \square</p>	<p>20. $2 \times 60 = \square$</p>
<p>Itotali 20</p>	

Ukuphinda kabini nehafu: Phambi kovavanyo	
ICANDELO 2	Imizuzu 3 kweli phepha
1.	Phinda kabini 42 = <input type="text"/>
2.	36 x 2 = <input type="text"/>
3.	64 ÷ 2 = <input type="text"/>
4.	Ihafu ye-102 = <input type="text"/>
5.	Phinda kabini 47 = <input type="text"/>
6.	Ihafu yama-38 = <input type="text"/>
7.	Ihafu ye <input type="text"/> = 52
Phinda kabini ama-39 ngama-78	
8.	Ihafu yama-78 ngama <input type="text"/>
9.	39 + 38 = <input type="text"/>
10.	Phinda kabini 39 = 40 + 40 - <input type="text"/>
Itotali 10	

UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 1

Umzuzu om-1 ubalo ngeNtloko

‘Ndiyabonisa, uyatsho’ (abafundi bonke kunye nomsebenzi wabafundi ngababini)

- a. Utishala ubonisa “uphindo” kabinini lwenani esebenzisa iminwe kwizandla zozibini, umzekelo.



Phinda kabini 3 sisi 6. Ngoku ndixelele iziphindwa zezivakalisi zale minwe ndiyibonisayo.’

Utishala ubonisa: Phinda kabini 4 Phinda kabini 1 Phinda kabini 3 Phinda kabini 5 Phinda kabini 2

Abafundi bathi isivakalisi esifanelekileyo, umzekelo. “Phinda kabini 4 sisi 8”.

- b. Abafundi basebenza ngababini bangawandisa lo msebenzi babonise Phinda kabini 6 – Phinda kabini 10 besebenzisa iminwe yabo:

Utishala: Abafundi ababini, ndiboniseni uphindo kabini 6.



Abafundi ngababini:

Utishala: Mingaphi iminwe iyonke kuphindo kabini 6?

Buza abafundi batshatise izandla zabo zijongene nezandla kukho umnwe omnye ovuliweyo. Nceda abafundi ukuba babone impendulo ukuba li 12 lenziwe zizandla ezimbini ngeminwe emi-5 nezandla ezimbini nomnwe om-1: $5 + 5$ kunye $1 + 1$.

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa inyaniso yesiseko sophinda kabini kunye nehafu kuma 20.

Ingxaki: Phinda kabini 6

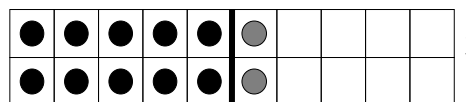
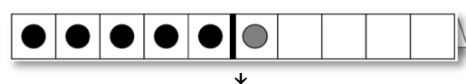
Bonisa amachokoza amathandathu kwihafu enye yekhadi leziphindwa. Vula ikhadi.

Utishala: Ngoku ndiphinda kabini isithandathu. Mangaphi amachokoza ewonke?

Abafundi: 12

Utishala: Wazi njani ukuba isiphindwa se-6 li-12?

Mamela kubafundi abathi ikhadi leziphindwa libonisa: ‘6 nesi 6’, ‘amaqela amabini esi-6’, ‘bini Phinda ka-6’, ‘6 x 2’.

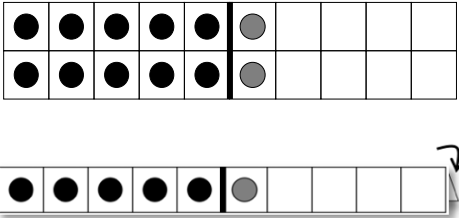
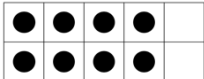
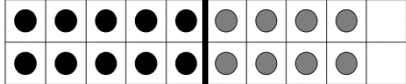
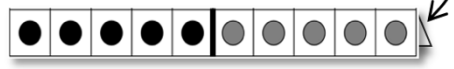


Phinda kabini 6 = 12

Amaqela amabini ezi-6 li-12

Bini phinda ka-6 li-12

$6 \times 2 = 12$

<p>Ingxaki: ihafu ye-12</p> <p>Bonisa amachokoza alishumi elinesibini kumakhadi anamachokoza eziphindwa. Songa ikhadi ngobude ehafini.</p> <p>Utishala: Ngoku ndiyabona ihafu yamachaphaza ye-12 kwaye ungayibona ihafu. Ngoko ke ngubani ihafu ye-12?</p> <p>Abafundi: 6</p> <p>Utishala: Uyazi njani impendulo ukuba sisi-6?</p> <p>Mamela kubafundi abanika inkcazelo efana: 'ihafu ye-12 sisi 6' okanye 'ishumi elinesibini ulohlule libe ngamaqela amabini sisi-6' okanye 'ishumi elinesibini ulohlulele ababini sisithandathu' okanye '$12 \div 2 = 6$'.</p> <p>Ukuba akukho zinikezelo zifanayo ezenziweyo, vumbulula abafundi baphinde ezi zivakalisi emva kwakho.</p> <p>Bhala ezimpendulo zahlukeneyo ebhodini.</p>	 <p>Ihafu ye-12 sisi-6</p> <p>Ishumi elinesibini ulahlule libe ngamaqela ama-2 alinganayo sisi-6.</p> <p>Ishumi elinesibini ulahlule ka-2 sisi-6.</p> <p>$12 \div 2 = 6$</p> <p>(Le mizekelo mayihlale ebhodini.)</p>
<p>Phindani kunye: Phinda kabini isi-4 ze uphinde kabini i-9 kumakhadi amachokoza</p> <p>Ihafu yesi-8 kunye nehafu yama-20 kumakhadi amachaphaza.</p> <p>Buza abafundi ukuba bathethe izivakalisi ezahlukeneyo ukutshatisa iziphindwa nganye kunye nehafu kumakhadi amachokoza.</p> <p>Khuthaza abafundi ukuba bawabone amachokoza (amnyama) amahlanu kunye nokusebenzisa ukufumana inani lamachokoza ngokukhawuleza. Ngoko ke iziphindwa ze-9 singabona oonontlanu ababini njenge-10 kwaye oonone ababini njengesi-8 ngoko Phinda kabini i-9 li-18.</p>	 <p>Phinda kabini isi-4 kunye nehafu yesi-8.</p>  <p>Phinda kabini i-9</p>  <p>Ihafu ayama-20</p>

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazame iphepha lomsebenzi womfundi ngamnye elinikiweyo kwisifundo esiqalayo. Abafundi mabagqibezele izivakalisi, ze babhale izivakalisi, ngaphantsi komfanekiso ngamnye wamakhadi anamachokoza kwiphepha lokusebenzela.

Ividiyo encedisayo

Doubling & Halving 1



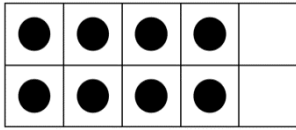
<https://youtu.be/UMmzMVM-SS0>

Igama:

Ukuphinda kabini nehafu Isifundo esiqalayo I: Umsebenzi womfundi ngamnye

Gqibezela isivakalisi okanye bhala izivakalisi ngomfanekiso ngamnye.

1. Phinda kabini isi-4



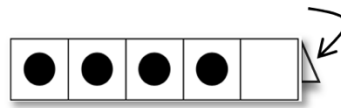
Phinda kabini si

Amaqela amabini si

Phinda kabini si

x 2 =

2. Ihafu yesi-8



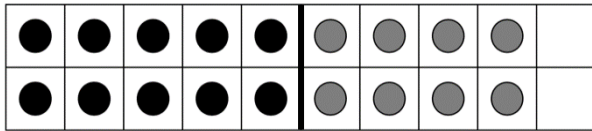
Ihafu ye =

8 hlula ngesi-2

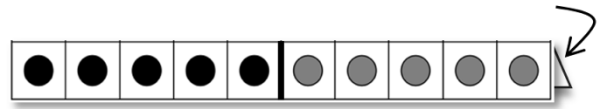
8 wahlulele aba-2

÷ 2 =

3. Phinda kabini i-9

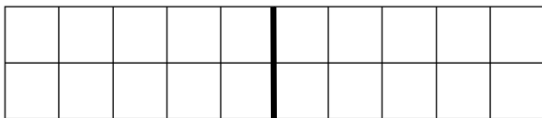


4. Ihafu yama-20



5. Phinda kabini

Zoba amachokoza enani lakho:



6. Ihafu ye

Zoba amachokoza enani lakho:



UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 2

Umzuzu om-1 ubalo ngeNtloko

IPop-Fiz phinda kabini kunye neehafu kwishumi

a. Utishala uthi 'pop', abafundi bathi 'fiz'; utishala ubiza inani, abafundi baphendule **ngophindo kabini** (okanye isiphindwa se-10 ngaphezulu):

Utishala: pop	→	Abafundi: fiz	
Utishala: 1	→	Abafundi: 2	
Utishala: pop	→	Abafundi: fiz	
Utishala: 5	→	Abafundi: 10	njalo njalo...

Phinda kabini ukuya 10: 1 – 2; 3 – 6; 5 – 10; 4 – 8; 2 – 4.

b. Utishala uthi 'pop', abafundi bathi 'fiz'; utishala ubiza inani, abafundi baphendule **ngeehafu** (okanye isiphindwa se-10 ngaphantsi):


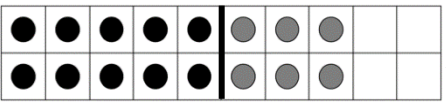
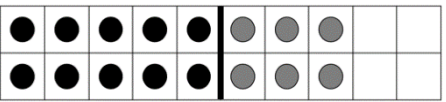

Utishala: pop	→	Abafundi: fiz	
Utishala: 8	→	Abafundi: 4	
Utishala: pop	→	Abafundi: fiz	
Utishala: 6	→	Abafundi: 3	njalo njalo...

lihafu ze 10: 10 – 5; 6 – 3; 4 – 2; 8 – 4; 2 – 1

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa inyaniso yesiseko sophinda kabini kunye nehafu kuma 20.

Qaphela: Amakhadi anamachokoza aphindwa kabini akhona kwincwadi enento yonke.

<p>Ingxaki: Dibanisa uphinda kabini $8 = \square$; Ihafu ye-16 = \square. Sebenzisa ikhadi elinamachokoza ukuphinda kabini isi-8. Songa ikhadi ukubonisa iqela elinye lesi-8. Livule ke ngoku ukubonisa omabini amaqela esi-8.</p> <p>Utishala: Ke ngubani isi-8 xa siphindwe kabini?</p> <p>Abafundi: 16</p> <p>Bhala 'phinda kabini isi-8 = 16' ebhodini.</p> <p>Utishala: Ke ngubani ihafu ye-16? (Songa ikhadi njengokuba uthetha oku ukubonisa indlela yokwenza ihafu ngokwenza amaqela amabini alinganayo.)</p> <p>Abafundi: 8</p> <p>Bhala 'ihafu ye-16 = 8' ngezantsi kwesivakalisi esiphinda kabini ebhodini.</p> <p>Le mizekelo mayihlale ebhodini.</p>	 <p style="text-align: center;">8 amachokoza</p> <p style="text-align: center;">↓</p>  <p style="text-align: center;">Phinda kabini 8 = 16</p> <p style="text-align: center;">↓</p>  <p style="text-align: center;">16 amachokoza</p> <p style="text-align: center;">↓</p>  <p style="text-align: center;">Ihafu ye-16 = 8</p>
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Imisebenzi yomfundi ngamnye

Beka uphinda phindo kabini lwesi-5, Phinda kabini isi-7 kunye uphinde kabini i-9 kumakhadi anamachokoza ebhodini. Abafundi kufuneka babhale uphindo kabini kunye nehafu kwisivakalisi samanani emakhadini.

Abafundi mabakhuthazwe ukuba bachaze iingcinga zabo.

Xelela abafundi bangabali ngoono-1.

Ukuba abafundi bagqiba lomsebenzi ngokukhawuleza, baxelele babhale izivakalisi zamanani zamanye amakhadi anamachokoza.

Ividiyo encedisayo

Doubling & Halving 2



<https://youtu.be/8g1unCfK1Lo>

Ividiyo encedisayo

Doubling & Halving 3



https://youtu.be/L2_MyczJOyU

UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 3

Umzuzu om-1 ubalo ngeNtloko

IPop-Fiz iziphindwa kabini kunye neehafu ukuya kumashumi amabini.

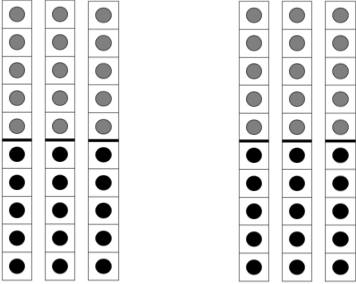
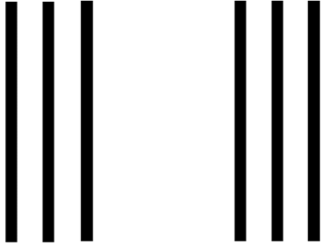
Phinda kabini ukuya 20: 1 – 2; 3 – 6; 5 – 10; 4 – 8; 2 – 4; 6 – 12; 9 – 18; 7 – 14; 8 – 16; 10 – 20.

Ihafu ukuya 20: 10 – 5; 6 – 3; 4 – 2; 8 – 4; 2 – 1; 12 – 6; 18 – 9; 14 – 7; 16 – 8; 20 – 10.

Ulandelelwano lomsebenzi

Kwesi sifundo siziqhelanisa ukuphinda kabini kweshumi.

Qaphela: Izitriphu zamachokoza zikhona kwincwadi enento yonke.

<p>Ingxaki: Dibanisa uphinda kabini-3 = <input type="text"/> ; phinda kabini 30 = <input type="text"/></p> <p>Sebenzisa untandathu 10-izitriphu ezinamachokoza ze uzihlele ukubonisa uphinda kabini-30.</p> <p>Utishala: Siyazi uphinda kabini isi-3 = 6, ngoko ke ngubani isiphindwa kabini sama-30?</p> <p>Abafundi: 60</p> <p>Utishala: Phinda kabini ama-30 ngama-60, ngoko ke ngubani ihafu yama-60?</p> <p>Abafundi: 30</p> <p>Bhala isivakalisi samanani ngale ndlela ibonisiweyo, kwaye ukhombe ukuba isi-6 kunye nama-60 adityanisiwe njengesi-3 kunye nama-30. Xelela abafundi bakhumbule ukuba uphinda kabini kunye neehafu kuyathungelana.</p> <p>Utishala: Singasebenzisa kwakhona nezitrips ukumela i-10 endaweni yokubonisa amachokoza amashumi ngalo lonke ixesha.</p> <p>Bonisa abafundi ebhodini ukuba angaboniswa njani amashumi usebenzisa izitrips ezide ozizobe ebhodini.</p>	<p style="text-align: center;">Phinda kabini 3 = 6</p>  <p style="text-align: center;">Phinda kabini 30 = 60</p> <p style="text-align: center;">Ihafu yama-60 = 30</p> 
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

Phinda kabini 2

Phinda kabini 5

Phinda kabini 7

Phinda kabini 20

Phinda kabini 50

Phinda kabini 70

Xelela abafundi bangabali ngoono-1. Mabasebenzise uthungelwano abalufundileyo ukubhala iziphindwa ezikhulu ngokukhawuleza.

Ukuba nawuphi umfundi uwugqiba ngokukhawuleza lo msebenzi, banike omnye umsebenzi wokuziqhelanisa:

Phinda kabini 3

Phinda kabini 8

Ihafu yesi 4

Ihafu yesi 8

Phinda kabini 30

Phinda kabini 80

Ihafu yama 40

Ihafu yama 80

UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 4

Umzuzu om-1 ubalo ngeNtloko

Uphindo kabini nehafu zamanani anganiki ngxaki.

Amanani anganiki ngxaki ngamanani ekulula ukusebenza ngawo. Ixesha elininzi iba ziziphindwa zeshumi.

“Ngubani ama...?”

Utishala: phinda kabini 30	→	Abafundi: 60	
Utishala: phinda kabini 10	→	Abafundi: 20	
Utishala: phinda kabini 50	→	Abafundi: 100	
Utishala: ihafu yama 40	→	Abafundi: 20	
Utishala: ihafu yama 50	→	Abafundi: 25	
Utishala: ihafu ye 100	→	Abafundi: 50	njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo siziqhelisa ngokuphinda kabini amanani amabini.

Qaphela: Izitriphu zamachokoza zikhona kwincwadi enento yonke.

<p>Ingxaki: Phinda kabini 35</p> <p>Sebenzisa isithandathu sezitriphu zamachokoza ali-10, kunye nesibini sezitriphu ezi-5, zilungise ukubonisa uphindo kabini lwama-35.</p> <p>Utishala: Le dayagram ibonisa isivakalisi samanani seziphi iziphindwa?</p> <p>Khumbuza abafundi ukuba isitriphu esi-1 (nokuba ngamachokoza okanye umgca ongqindilili) ubonisa ishumi eli-1.</p> <p>Abafundi: Phinda kabini 35 (okanye 35 + 35)</p> <p>Utishala: Singayibala njani impendulo?</p> <p>Mamela kubafundi abathetha ngokubeka amashumi wodwa ukuze bafumane amashumi ama-6 okanye 60 kunye nokubeka izi-5 ezibini ukuze bafumane i-10.</p> <p>Bhala oku indlela 'yokucalula' ngale ndlela ibonisiweyo ecaleni ebhodini.</p>	<p>Phinda kabini 35</p> <p>double 35</p> <p>30 5</p> <p>↓ ↓</p> <p>60 10</p> <p>double 35 = 70</p>
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<p>Ingxaki: 29×2</p> <p>Phinda indlela yokucalula isiphindwa sama-29 ngale ndlela ibonisiweyo. Khumbuza abafundi ukuba ukuphindaphinda ngesi-2 (okanye $\times 2$) iyafana nokuphindaphinda.</p> <p>Vumela abafundi bakuncedise ukufakela iziphindwa zamashumi kunye nemivo.</p> <p>Abanye abafundi bangathi 29×2 ngama $60 - 2 = 58$. Le ndlela nayo mayamkelwe.</p>	<div style="text-align: center;"> <p>double 29</p> <p>double 29 = 58</p> </div>
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Imisebenzi yomfundi ngamnye

Abafundi mabazame le mizekelo ilandelayo:

Phinda kabini 41 Phinda kabini 36 Phinda kabini 47

Abafundi mababhale ucalulo ze babale iziphindwa zamashumi kunye nemivo ngentloko. Injongo kukubala sijonge ekukwazini ukuphendula le mibuzo ngentloko.

Abafundi mabachaze iingcinga zabo, umzekelo. “Phinda kabini 47 uphindwa kabini 40 (ngama 80) ze uphinde kabini 7 (li-14). 80 kunye 14 ngama 80, 90, 94.”

Xelela abafundi bangabali ngoono-1.

Umsebenzi wasekhaya – Iphepha lokusebenzela 1

Ekupheleni komsebenzi wanamhlanje nika abafundi iphepha lokusebenzela 1.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko.

Ividiyo encedisayo

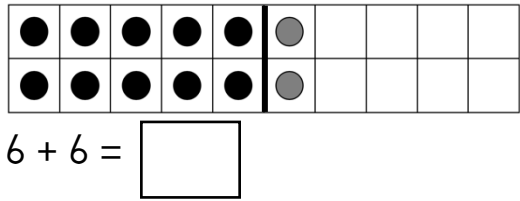
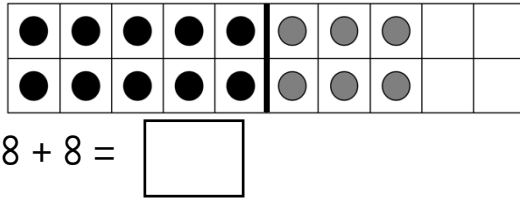
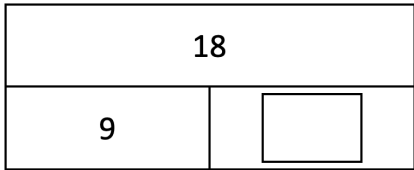
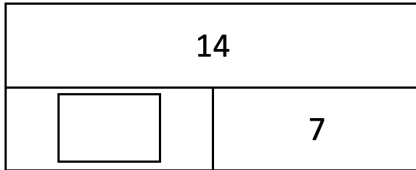
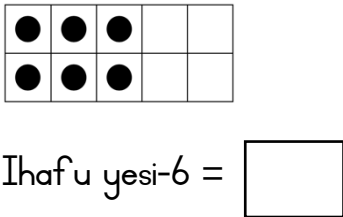
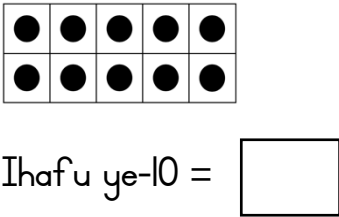
Doubling & Halving 4



<https://youtu.be/qnSniN-bliU>

Igama:

Ukuphinda kabini nehafu: Iphepha lokusebenzela I

<p>1. </p>	<p>11. </p>
<p>2. Ihafu ye-12 = []</p>	<p>12. 11 x 2 = []</p>
<p>3. 9 + 9 = []</p>	<p>13. Ihafu ye [] = 8</p>
<p>4. Phinda kabini 7 = []</p>	<p>14. Phinda kabini 30 = []</p>
<p>5. [] x 2 = 16</p>	<p>15. Phinda kabini 50 = []</p>
<p>6. </p>	<p>16. </p>
<p>7. Phinda kabini 10 = []</p>	<p>17. Ihafu yama-40 = []</p>
<p>8. </p>	<p>18. </p>
<p>9. 12 ÷ 2 = []</p>	<p>19. Ihafu yama-70 = []</p>
<p>10. Ihafu ye-14 = []</p>	<p>20. 2 x 70 = []</p>

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokuphinda kabini nehafu. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Doubling & Halving 5



<https://youtu.be/t2jBnZHnn1Y>

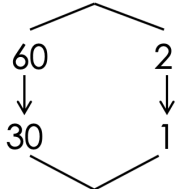
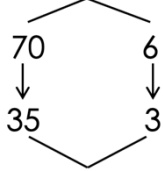
UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 5

Umzuzu om-1 ubalo ngeNtloko

Uphindo kabini neehafu zamanani anganiki ngxaki.

Ulandelelwano lomsebenzi

Kwesi sifundo siziqhelisa ngokuphinda kabini amanani amabini.

<p>Ingxaki: $62 \div 2$</p> <p>Khumbuza abafundi ukuba ukwahlula ngesi-2 ($\div 2$) kuyafana nokuba ngathi ubala ihafu.</p> <p>Utishala: Singayibala njani ukuba ngubani ihafu yama-62?</p> <p>Mamela abafundi abathetha ngehafu yama-60 ukufumana ama-30 ze enze akhuphe ihafu yesi-2 ukufumana isi-1, ukufumana impendulo yama-31.</p> <p>Bhala oku indlela 'yocalulo' eboniswe kwela cala ebhodini.</p>	<p>half of 62</p>  <p>half of 62 = 31</p>
<p>Ingxaki: $76 \div 2$</p> <p>Phinda indlela yocalulo wenze ihafu yama-76 ngale ndlela ibonisiweyo. Khumbuza abafundi ukuba ukwehlula ngesi-2 (okanye $\div 2$) kuyafana nokukhupha ihafu.</p> <p>Vumela abafundi bakuncedise ufakele iihafu zamashumi nemivo.</p>	<p>half of 76</p>  <p>half of 76 = 38</p>

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazame le mizekelo ilandelayo:

Ihafu yama 42

$68 \div 2$

$34 \div 2$

Abafundi kufuneka babhale ucalulo ze babale bakhuphe iihafu zamashumi nemivo ngentloko.

Abafundi mabachaze iingcinga zabo, umzekelo. “ $34 \div 2$ yihafu yama-30 (oko kukuthi 15) kunye nehafu ye-4 (sisi-2). 15 kunye-2 li-17.”

Xelela abafundi bangabali ngoono-1.

Ividiyo encedisayo

Doubling & Halving 6



<https://youtu.be/fxDY11LICsc>

UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 6

Umzuzu om-1 ubalo ngeNtloko

Thetha oku ngenyi ndlela:

Sebenza ngeendlela ezahlukeneyo ezimele uphinda kabini kunye nehafu. Ezi zingabandakanya amagama afana noo 'phinda kabini 7' kunye ihafu ye 16', okanye ezinye iindlela ezifana 'amaqela amabini e-7' okanye '7 kunye 7' okanye '7 + 7' okanye '16 ÷ 2' okanye 'ishumi elinesithandathu lohlulwe phakathi kwababini'.

Oku kwakho kungabandakanya ukunika umzobo ofana nalo ungezantsi:

9	9
18	

Abafundi kufuneka beze neendlela zokuchaza okanye ukubhala 'phinda kabini 9 = 18' umzekelo. $9 + 9 = 18$ $18 - 9 = 9$
izithoba ezimbini zenza 18 $9 \times 2 = 18$

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa iziphindwa kunye neehafu kwiindlela ezininzi.

<p>Ingxaki: phinda kabini 26</p> <p>Buza abafundi banike iindlela ezahlukeneyo ukuchaza oku sikubona kwidayagram.</p> <p>Umzekelo, phinda 26 uyafana nama 26×2 okanye 'isibini samaqela sama 26'. Omnye umzekelo ngulo wokuba uphindo kabini ama 26 sisi 2 ngaphezu kophinda kabini ama 25 kuba iqela ngalinye lune si-1 esingaphezulu kulo.</p> <p>Yongeza uluvo olutsha kubafundi kwidayagram.</p> <p>Abanye abafundi bzakuza nokuthabatha babale ama-$52 - 26 = 26$. Bhala oku kwi dayagram ukuba iveziwe. Ukuqhagamshela ukudibanisa nokuthabatha Kufundiswa njengendlela yokwenza kuluhlu lokugqibela lwezifundo zokuqala.</p>	
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Imisebenzi yomfundi ngamnye

Abafundi ngoku kufuneka bazobe umnatha weenyani, njengalo ungentla uqhagamshelwe ku:

Phinda kabini 43 = 86

Abafundi mabachaze iingcinga zabo, umzekelo. "ndiyayazi ama 43 kunye nama 43 ngama 86" okanye "phinda kabini 43 ngama 86, ke, ndiyayazi iphinda kabini ama 430 ngama 860."

Ukuba abanye abafundi bagqiba umsebenzi ngokukhawuleza, bacele benze omnye umnatha weenyani ezithungelanayo ukuqala ngophinda kabini okanye ihafu kwiinyani abazikethayo.

UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 7

Umzuzu om-1 ubalo ngeNtloko

Iziphindwa kunye neehafu zophindaphindo lwama-10, 100,1000

“Ngubani i...?”

Utishala: phinda kabini 10	→	Abafundi: 20	
Utishala: phinda kabini 100	→	Abafundi: 200	
Utishala: phinda kabini 1000	→	Abafundi: 2000	
Utishala: ihafu yama 40	→	Abafundi: 20	
Utishala: ihafu yama 400	→	Abafundi: 200	
Utishala: ihafu yama 4000	→	Abafundi: 2000	njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo senza umsebenzi wokuziqhelisa ngeziphindwa neehafu zophindaphindo nge-10.

<p>Ingxaki: Phinda kabini 34 → Phinda kabini 340 → Phinda kabini 3400</p> <p>Utishala: Singalubala njani uphindo kabini lwama-34?</p> <p>Mamela abafundi abathetha ngophinda kabini lwama-30 ukufumana ama-60 kwakhona uphinda kabini isi-4 ukufumana isi-8, ukufumana ama-68.</p> <p>Ukuba abafundi bayasokola ukubala oku ngentloko, bhala le ndlela yocalulo ngokwalendlela ibonisiweyo.</p> <p>Utishala: Singakusebenzisa oko sikwaziyo ngokuphinda kabini ama-34 ukufumana ukuba ukuphinda kabini ama- 340 iyakuba ngubani na?</p> <p>Mamela abafundi abathi ama-340 makhulu ngamatyeli ali-10 kunama-34 ngoko phinda kabini ama-340 makhulu ngamatyeli alishumi kunama-68; ngama-680.</p>	<div style="text-align: center;"> <p>double 34</p> <p>double 34 = 68</p> </div> <p>double 34 = 68</p> <p>double 340 = <input type="text"/></p>
<p>Ingxaki: Ihafu yama-46 → Ihafu yama-460</p> <p>Utishala: Singayibala njani ihafu yama-46 ukuba ngubani?</p> <p>Mamela abafundi abathetha ngehafu yama-40 ukufumana ama-20 kunye nehafu yesi-6 ukufumana u-3, ukufumana ama-23.</p> <p>Ukuba abafundi bayasokola ukubala oku ngentloko, bhala indlela yokwenza ucalulo ngokwale ndlela ibonisiweyo.</p>	<div style="text-align: center;"> <p>half of 46</p> <p>half of 46 = 23</p> </div>

<p>Utishala: Singakusebenzisa esikwaziyo ngehafu yama-46 ukubala ihafu yama-460 ukuba iyakuba ngubani?</p> <p>Mamela abafundi abathi ama-460 makhulu kalityeli ali-10 ngama-46 ngoko ihafu yama- 460 li-10 eliphindwe ngama-23 = 230.</p>	<p>ihafu yama-46 = 23</p> <p>ihafu yama-460 = <input type="text"/></p>
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Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazobe umnatha weenyani, ofana nalo ungentla, uqhagamshelwe ku:

Phinda kabini 45 Phinda kabini 27 Ihafu yama 82 half of 76

Phinda kabini 450 Phinda kabini 270 Ihafu yama 820 Ihafuyama 760

Khuthaza abafundi ukuba babale uphindo kabini lokuqala/ ihafu ngentloko ukuba bayakwazi ukusebenzisa ipateni ukuphendula ukuphinda kabini/iihafu olulandelayo ngokukhawuleza.

Umsebenzi wasekhaya– Iphepha lokusebenzela 2

Ukuphela kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 2.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko.

Ividiyo encedisayo

Doubling & Halving 7



<https://youtu.be/JJUPpmMdaAw>

Igama:

Ukuphinda kabini nehafu: Iphepha lokusebenzela 2

<p>1. Phinda kabini ama-32 <input type="text"/></p>	<p>11. Phinda kabini ama-44 <input type="text"/></p>
<p>2. $26 \times 2 =$ <input type="text"/></p>	<p>12. $38 \times 2 =$ <input type="text"/></p>
<p>3. $42 \div 2 =$ <input type="text"/></p>	<p>13. $86 \div 2 =$ <input type="text"/></p>
<p>4. Ihafu ye-110 = <input type="text"/></p>	<p>14. Ihafu ye-104 = <input type="text"/></p>
<p>5. Phinda kabini ama-23 = <input type="text"/></p>	<p>15. Phinda kabini ama-39 = <input type="text"/></p>
<p>6. Ihafu yama-36 = <input type="text"/></p>	<p>16. Ihafu yama-48 = <input type="text"/></p>
<p>Phinda kabini ama-31 ngama-62</p> <p>7. $2 \times 31 =$ <input type="text"/></p> <p>8. Ihafu yama-62 nga <input type="text"/></p> <p>9. $31 + 32 =$ <input type="text"/></p> <p>10. Phinda kabini 31 = $30 + 30 +$ <input type="text"/></p>	<p>Phinda kabini ama-49 ngama-98</p> <p>17. $2 \times 49 =$ <input type="text"/></p> <p>18. Ihafu yama-98 nga <input type="text"/></p> <p>19. $49 + 48 =$ <input type="text"/></p> <p>20. Phinda kabini 49 = $50 + 50 -$ <input type="text"/></p>

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela ngokuphinda kabini nehafu. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Doubling & Halving 8



https://youtu.be/_qp_sjlzqLw

UKUPHINDA KABINI NEHAFU: ISIFUNDO ESIQALAYO 8

Umzuzu om-1 ubalo ngeNtloko

Uphindo kabini nehafu zamanani anganiki ngxaki.

Ulandelwano lomsebenzi

Kwesi sifundo sakha iinyaniso ezithungelanayo kuphindo kabini okanye ihafu yamanani, sibandakanya phantse uphindo kabini.

<p>Ingxaki: phinda kabini 17</p> <p>Buza abafundi ngeendlela ezahlukenenyo zokuchaza oko bakubonayo kule dayagram.</p> <p>Umzekelo, $17 + 18$ makabe 1 ngaphezulu kune-$17 + 17$. Omnye umzekelo ngulo phinda kabini i-17 sisi-2 ngaphezulu kunophinda kabini i-16 kuba iqela ngalinye lino-1 ngaphezulu kulo.</p> <p>Yongeza naziphi iimbono ezintsha ezivela kubafundi ngokwedayagram.</p> <p>Abanye abafundi bangaveza ubalo lokuthabatha $34 - 17 = 17$. Bhala oku kwidayagram ukuba luveziwe. Ukuqhagamshela ukudibanisa nokuthabatha Kufundiswa njengendlela yokwenza ekupheleni kweseti yezifundo eziqalayo.</p>	
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Imisebenzi yomfundi ngamnye

1. Abafundi ngoku kufuneka bazobe umnatha weenyani, njengalo ungentla, uqhagamshelwe ku:

$$\text{Phinda kabini } 38 = 76$$

Umzekelo, ' $38 + 38 = 76$ ' okanye 'ihafu ye $760 = 380$ ' okanye 'ihafu yehafu yama $76 = 19$ '

Abafundi mabachaze iingcinga zabo, umzekelo. "ikota yama-76 li-19 kuba ngenze ihafu ndaphinda enye ihafu kwakhona."

Xelela abafundi bangabali ngoo-1.

2. Abafundi mabazame ukuphendula le mibuzo:

Ngubani ama-99 xa ephindwa kabini?

Gqibezela isivakalisi: Phinda kabini ama-99 = phinda kabini 100 – □

Ngubani ama-49 xa ephindwa kabini?

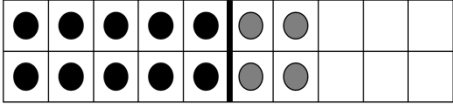
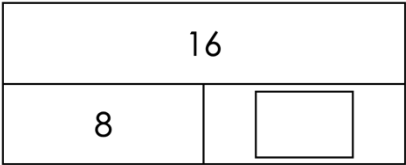
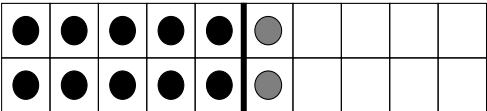
Ukuba abanye abafundi bawugqibe lo msebenzi ngokukhawuleza, bacele ukuba benze omnye umnatha weenyani baqale nangezphi iinyaniso ngophinda kabini okanye ihafu abazikhethileyo.

Igama:

Ukuphinda kabini nehafu: Emva kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

<p>1. </p> <p>$7 + 7 = \square$</p>	<p>1. $14 + 14 = \square$</p>
<p>2. Ihafu ye-14 = \square</p>	<p>2. $7 \times 2 = \square$</p>
<p>3. $9 + 9 = \square$</p>	<p>3. Ihafu ye $\square = 7$</p>
<p>4. Phinda kabini 8 = \square</p>	<p>4. Phinda kabini 100 = \square</p>
<p>5. $\square \times 2 = 14$</p>	<p>5. Phinda kabini 20 = \square</p>
<p>6. </p>	<p>6. Ihafu yama $\square = 40$</p>
<p>7. Phinda kabini 10 = \square</p>	<p>7. Ihafu yama-50 = \square</p>
<p>8. </p> <p>Ihafu ye-12 = \square</p>	<p>8. $18 \div 2 = \square$</p>
<p>9. $10 \div 2 = \square$</p>	<p>9. Ihafu yama-30 = \square</p>
<p>10. Ihafu ye-18 = \square</p>	<p>20. $2 \times 60 = \square$</p>
<p>Itotali 20</p>	

Ukuphinda kabini nehafu: Emva kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha

1. Phinda kabini ama-42 =

2. $36 \times 2 =$

3. $64 \div 2 =$

4. Ihafu ye-102 =

5. Phinda kabini 99 =

6. Ihafu yama-38 =

7. Ihafu yama = 52

Phinda kabini ama-39 ngama-78

8. Ihafu yama-78 ngama

9. $39 + 38 =$

10. Phinda kabini 39 = 40 + 40 -

Itotali 10

UKUFIKELELANISA NOKULUNGELELANISA

Intshayelelo

Kwezi zifundo ziqalayo zintathu kugxilwe ekudibaniseni kusetyenziswa ukufikelelanisa kwinani elinganiki ngxaki nokulungelelanisa. Kwezilandelayo izifundo eziqalayo ezintathu, kugxilwa ekuthabatheni kusetyenziswa ukufikelelanisa nokulungelelanisa. Ezokugqibela izifundo zabaqalayo ezimbini zigxila ekubaleni apho inani elingaphezu kwelinye kungafikekelwa kwinani elinganiki ngxaki. Amanani anganiki ngxaki ngamanani ekulula ukusebenza ngawo. Kusoloko ke iziziphindwa zeshumi. Eminye imisebenzi ikhokelwa ngutishala ebhodini ze eminye yeyabafundi bazenzele bodwa.

Izakhono zokukhumbula ngokukhawuleza

Kunezakhono zokukhawuleza ukucinga ezintandathu ekufuneka abafundi bezifundile indlela yokwenza ukufikelelanisa nokulungelelanisa:

- bala usukela okanye ubuya umva ngama-10 ukusuka nakweliphi inani (umzekelo. 12, 22, 32, okanye 57, 47, 37, ...)
- dibanisa okanye uthabathe 1, 2 kunye 3 ukusukela nakweliphi inani ngokuvala ngamashumi nokuba akunjalo (umzekelo. $49 + 1 = 50$ okanye $30 - 2 = 28$; $49 + 2 = 51$ or $52 - 3 = 49$).
- dibanisa iziphindwa zeshumi nakweliphi inani (umzekelo. $61 + 20 = 81$)
- thabatha iziphindwa zeshumi nakweliphi inani (umzekelo. $46 - 30 = 16$)
- yazi iziphindwa ezikufutshane zeshumi (umzekelo. 47 ukufutshane kuma-50; 39 ukufutshane kuma-40)
- yazi indlela yokusondela kwiziphindwa ze-10 (umzekelo. 43 asisi-3 kude kuna-40; 19 lisisi-1 kude kuna-20).

Igama:

Ukufikelelanisa nokulungelelanisa: Phambi kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

1. $23 + 30 = \square$	11. $69 + 2 = \square$
2. $42 - 3 = \square$	12. $68 + 10 = \square$
3. $57 - 10 = \square$	13. $38 + 3 = \square$
4. $51 - 2 = \square$	14. $145 + 30 = \square$
5. $137 - 20 = \square$	15. $97 - 60 = \square$
6. $43 + 40 = \square$	16. $48 = \square - 2$
7. $29 = \square - 1$	17. $49 + \square = 50$
8. $67 + \square = 70$	18. Phinda kabini 50 = \square
9. $97 = 100 - \square$	19. Phinda kabini 100 = \square
10. $88 + \square = 90$	20. $28 + \square = 30$
Itotali 20	

Ukufikelelanisa nokulungelelanisa: Phambi kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha

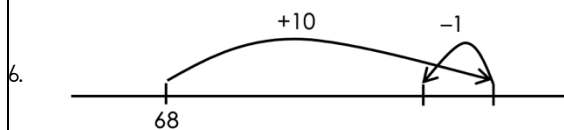
1. $34 + 29 = \square$

2. $64 - 19 = \square$

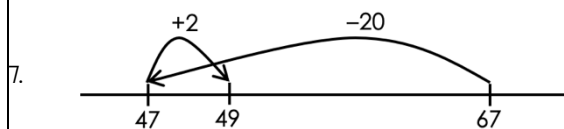
3. $27 + 98 = \square$

4. $234 - 99 = \square$

5. $97 + 98 + 99 = \square$



$68 + \square = 68 + 10 - 1$



$67 - 18 = 67 - 20 + \square$

8. $56 + 28 = 56 + \square - 2$

9. $84 - 39 = 84 - \square + 1$

10. Biyela isivakalisi samanani anika impendulo enye efana:

$80 - 59$

$80 + 60 - 1$

$80 - 60 - 1$

$80 - 60 + 1$

$80 + 60 + 1$

Itotali 10

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 1**Umzuzu om-1 ubalo ngeNtloko**

a. Biyela igumbi kali-10 ngaphezulu

Utishala ubiza inani ze abafundi baphendule biyela igumbi kali-10 ngaphezulu kunenani lokugqibela.

Utishala: 16

Umfundi 1: 26 → Umfundi 2: 36 → Umfundi 3: 46 → Umfundi 4: 56 njalo njalo.

b. Dibanisa iziphindwa ze-10

“Ngubani ama...?”

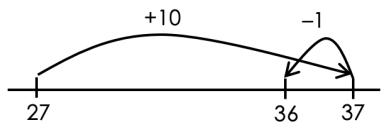
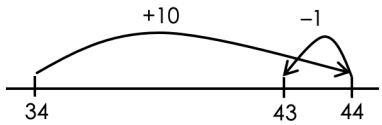
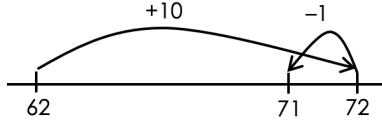
Utishala: 43 + 20 → Abafundi: 63

Utishala: 35 + 20 → Abafundi: 55

Utishala: 42 + 30 → Abafundi: 72 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sazisa indlela yokwenza ukufikelelanisa nokulungelelanisa.

<p>Buza abafundi ukuba banike iimpendulo kumsebenzi osebhodini (odweliswe ngasekunene) ze ubuze abafundi ukuba baqaphela ntoni na.</p> <p>Utishala: Niqaphela ntoni?</p> <p>Abafundi: Dibanisa i-9 unike impendulo efanayo njengoba udibanisa i-10 thabathe ibe-1.</p>	<p>Bhala ebhodini:</p> $27 + 9 = \qquad 27 + 10 =$ $34 + 9 = \qquad 34 + 10 =$ $62 + 9 = \qquad 62 + 10 =$
<p>Utishala: Amanani anganiki ngxaki ngamanani ekulula ukusebenza ngawo. Ishumi linani elinganiki ngxaki. Kule ndlela yokwenza, xa udibanisa i-9, sifikelelanisa inani i-9 kwi-10. Senza oku kuba likufutshane kwi-10 kwaye i-10 linani elinganiki ngxaki ngoko kulula ukudibanisa.</p> <p>Ngoko songeza i-10 ze siphinde silungelelanise impendulo yethu ngokususa la-1 wongeziweyo besimdibanise ngokuya besifikelelanisa.</p> <p>Bonisa $27 + 9$; $34 + 9$ and $62 + 9$ ngomgca manani ebhodini.</p> <p>Utishala: Siyibiza le ndlela yokwenza Ukufikelelanisa Nokulungelelanisa.</p> <p>Buza abafundi ukuba babize amagama ukufikelelanisa nokulungelelanisa kakhulu ze bakhombe kula magama ebhodini njengokuba bewathetha.</p>	<p>$27 + 9$</p>  <p>$34 + 9$</p>  <p>$62 + 9$</p>  <p>Bhala ebhodini:</p> <p>Ukufikelelanisa Nokulungelelanisa</p>

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$33 + 9$

$48 + 9$

$76 + 9$

$84 + 9$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $33 + 9$, ukufikelelanisa kwe-9 kwi-10 ze wandule ukudibanisa i-10 kuma-33 impendulo ngama-43; ze ndilungelelanise impendulo ngokuthabatha u-1, ke impendulo ngama-42.” Njengoko uphinda indlela yokwenza yabafundi gxininisa apho benze ukufikelelanisa nokulungelelanisa.

Ividiyo encedisayo

Rounding & Adjusting 1



<https://youtu.be/jpwwvujejpl>

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 2

Umzuzu om-1 ubalo ngeNtloko

a. IPop-Fiz: Ukusondela kwisiphindwa se-10.

Utishala uthi 'pop' ze abafundi bathi 'fiz'; ze utishala abize inani, abafundi baphendule ngelinye inani.

Kule nguqulelo, abafundi kufuneka baphendule ngokusondela kwisiphindwa seshumi.

Utishala: pop	→	Abafundi: fiz	
Utishala: 18	→	Abafundi: 20	
Utishala: pop	→	Abafundi: fiz	
Utishala: 37	→	Abafundi: 40	
Utishala: pop	→	Abafundi: fiz	
Utishala: 42	→	Abafundi: 40	
Utishala: pop	→	Abafundi: fiz	
Utishala: 33	→	Abafundi: 30	njalo njalo...

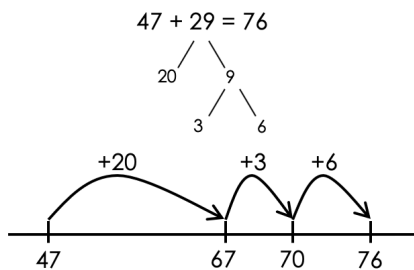
b. IPop-Fiz: Utsibela njani kwisiphindwa se-10 esikufutshane

Ngeli xesha abafundi bathetha ekufuneka kwenzekile ukuya kwisiphindwa seshumi esikufutshane

Utishala: 7	→	Abafundi: +3	
Utishala: 28	→	Abafundi: +2	
Utishala: 19	→	Abafundi: +1	
Utishala: 43	→	Abafundi: -3	
Utishala: 32	→	Abafundi: -2	
Utishala: 11	→	Abafundi: -1	njalo njalo...

Ulandelelwano lwemisebenzi

Kwesi sifundo sazisa indlela yokufikelelanisa nokulungelelanisa ngokudibanisa.

<p>Buza abafundi ukuba bakhumbula ntoni na ngendlela yokwenza utsibo.</p> <p>Utishala: Xa besisebenza indlela yokwenza utsibo, sibale njani $47 + 29$?</p> <p>Vumela abafundi ukuba bachaze indlela ze ubuze abafundi ukuba bayibonise ebhodini. Khumbuza abafundi ngamanyathelo: beka, calula, tsiba kunye nempendulo.</p> <p>Abafundi: Dibanisa 20 kuma 47 ukufumana 67, ze udibanise 3 ukufumana ama 70, ze udibanise 6 ($3 + 6 = 9$).</p>	<p>Umfanekiso opholeleyo wokugqibela uboniswe ngezantsi:</p> 
<p>Utishala: Leliphi inani elingenangxaki ama 29 akufutshane kulo?</p> <p>Abafundi: 30</p>	<p>$47 + 29$</p>

Utishala: Ukuba sifikelelanisa ama-29 kuma-30 ze sitsibe ama-30 ukuya phambili sisuka kuma-47 siyakuba phi?

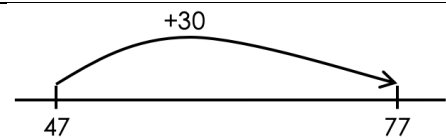
Abafundi: 77(bonisa oku ebhodini)

Utishala: Ingaba ama-77 yimpendulo yokugqibela okanye kufuneka **silungelelanise**?

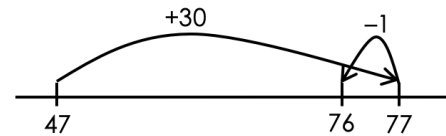
Buza abafundi ukuba bachaze ukuba kunganina silungelelanisa impendulo: Songeze enye eyongezelelweyo, ngoko ke masithabathe u inye kwimpendulo ukufumana ama-76.

Bonisa oku kumgca manani ebhodini.

Xelela abafundi kweli lixa indlela yokulungelelanisa isebenza kakuhle xa inani elinye likufutshane kwinani elinganiki ngxaki.



Dibanisa kumgca manani:



Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$26 + 19 \quad 54 + 39$$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama 26 + 19, ndisondeza i-19 kuma-20 ndandule ukudibanisa ama-20 kuma-26 ukufumana ama-46; ze ndilungelelanise impendulo ngokuthabatha i-1, impendulo ngama-45.” Njengokuba uphinda indlela yokwenza abafundi bagxininisa kukufikelelelanisa nolungelelanisa.

Ividiyo encedisayo

Rounding & Adjusting 2



<https://youtu.be/fGILndzXfSY>

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 3**Umzuzu om-1 ubalo ngeNtloko**

a. IPop-Fiz: Indlela yokutsibela kwisiphindwa se-10 esisondelelyo.

b. Ubalo olukhawulezileyo: Thabatha 1, 2 okanye 3

“Ngubani ama ...?”

Utishala: $63 - 1 \rightarrow$ Abafundi: 62

Utishala: $54 - 2 \rightarrow$ Abafundi: 52

Utishala: $78 - 1 \rightarrow$ Abafundi: 77

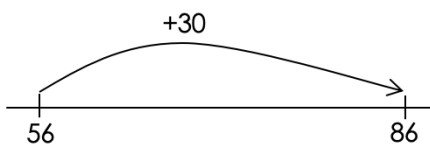
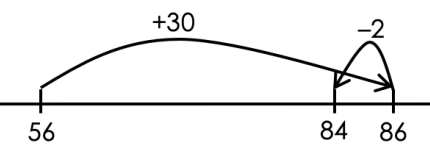
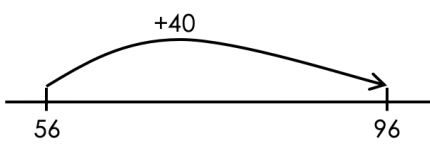
Utishala: $61 - 2 \rightarrow$ Abafundi: 59

Utishala: $52 - 3 \rightarrow$ Abafundi: 49

njalo njalo...

Imisebenzi elandelelanayo

Kwesi sifundo sisebenzisa indlela yokufikelelanisa nokulungelelanisa sidibanisa.

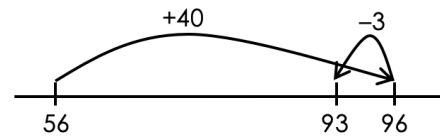
<p>Utishala: Xa sidibanisa ama-28 okanye ama-38 okanye ama-48 kwinani, singasebenzisa indlela yokufikelelanisa nolungelelaniso? Singayisebenzisa ukusombulula $56 + 28$? Leliphi inani elingenangxaki ama-28 akufutshane kulo?</p> <p>Abafundi: 30</p> <p>Utishala: Ukuba sifikelelanisa ama-28 kuma-30 ze sitsibe ama-30 ukuya phambili ukusuka kuma-56, siyakuba phi?</p> <p>Abafundi: 86</p> <p>Utishala: Singawalungelelanisa njani ama-86?</p> <p>Buza abafundi bachaze ingqiqo yokulungelelanisa impendulo: sidibanise esinye isibini esongeziweyo, ngoko kufuneka sithabathe isibini kwimpendulo ukuze sifumane ama-84.</p> <p>Bonisa oku kumgca manani ebhodini.</p>	<p>$56 + 28$</p>  <p>Dibanisa kumgca manani:</p> 
<p>Utishala: Xa sidibanisa ama-27 okanye ama-37 okanye ama-47 kwinani, singasebenzisa indlela yokufikelelanisa nolungelelaniso? Singayisebenzisa ukusombulula $56 + 37$? Leliphi inani elingenangxaki ama-37 akufutshane kulo?</p> <p>Abafundi: 40</p> <p>Utishala: Ukuba sisondeza ama-37 kuma-40 ze kengoku sitsibe ama-40 ukuya phambili, siya kuba phi?</p>	<p>$56 + 37$</p>  <p>Dibanisa kumgca manani:</p>

Abafundi: 96

Utishala: Silungelelanisa njani ama-96?

Buza abafundi bachaze ingqiqo yokulungelelanisa impendulo: sidibanise isithathu esongeziweyo, ngoko masithabathe isithathu kwimpendulo sizofumana ama-93.

Bonisa oku kumgca manani ebhodini.



Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$25 + 18 \quad 44 + 48 \quad 65 + 27$$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $25 + 18$, ndifikelelanisa i-18 kuma-20 ze ndidibanise ama-20 kuma-25 ukufumana ama-45; ukuze ndilungelelanise impendulo ngokuthabatha isi-2, impendulo ngama-43.” Njengokuba uphinda indlela yokwenza abafundi bagxininisa kukufikelelelanisa nokulungelelanisa.

Ividiyo encedisayo

Rounding & Adjusting 3



https://youtu.be/St5nSH_BdRE

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 4

Umzuzu om-1 ubalo ngeNtloko

a. Biyela igumbi lokufundela kali-10 ngaphantsi.

Utishala ubiza inani ze abafundi baphendule biyela igumbi lokufundela kali-10 ngaphantsi kwenani lokugqibela.

Utishala: 128

Umfundi 1: 118 → Umfundi 2: 108 → Umfundi 3: 98 → Umfundi 4: 88 njalo njalo.

b. Thabatha iziphindwa ze-10

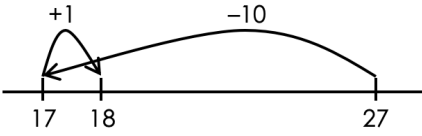
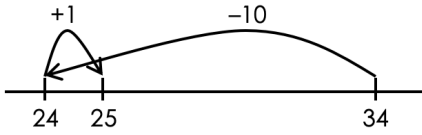
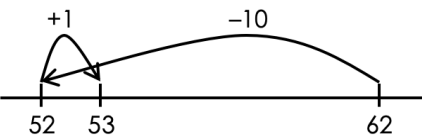
“Ngubani ama...?”

Utishala: 71 – 20 → Abafundi: 51

Utishala: 59 – 30 → Abafundi: 29 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokufikelelanisa nokulungelelanisa sithabatha.

<p>Utishala: Singasebenzisa indlela yokufikelelanisa nokulungelelanisa sithabatha amanani asondeleyo kumanani anganiki ngxaki.</p> <p>Xa sidibanisa ama-27 kunye ne-9, sidibanisa i-10 ze silungelelanise ngokuthabatha u-inye. Singenza ama-27 – 9 njengama 27 – 10 ze silungelelanise ngokudibanisa kuba sithathe la-1 ebongeziwe.</p>	<p>$27 - 9 = 27 - 10$ ze udibanise 1</p> 
<p>Utishala: Makhe sense olunye ubalo sisebenzisa ukufikelelanisa nokulungelelanisa ngokuthabatha i-9. $34 - 9$ uyafana nama- $34 - 10$ (ukufikelelanisa) ze udibanise enye kwakhona (ukulungelelanisa).</p> <p>Zoba umgca manani ngale ndlela ibonisiweyo.</p> <p>Utishala: Ke, $34 - 9 = 25$.</p> <p>Yenza ama-$62 - 9$ njengomnye umzekelo ngale ndlela inye ze ubonise umgca manani ebhodini.</p>	<p>$34 - 9$</p>  <p>$62 - 9$</p> 

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$23 - 9 \quad 48 - 9 \quad 76 - 9$$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama- $23 - 9$, ndifikelelanisa i-9 kwi-10 ndandule ukuthabatha i-10 kuma-23 ukufumana i-13; ukuze ndifikelelanise impendulo ngokudibanisa u-1 impendulo li-14.” Njengokuba uphinda indlela yokwenza abafundi bagxininisa kukufikelelelanisa nokulungelelanisa.

Umsebenzi wasekhaya: Iphepha lokusebenzela 1

Ukuphela kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 1.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko

Ividiyo encedisayo

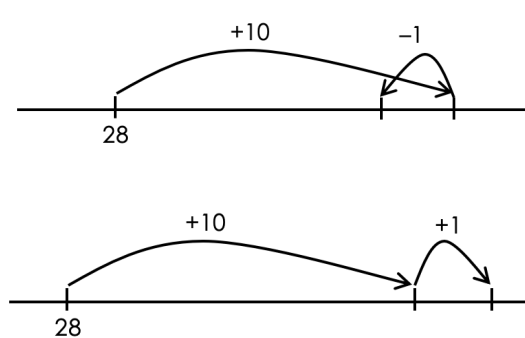
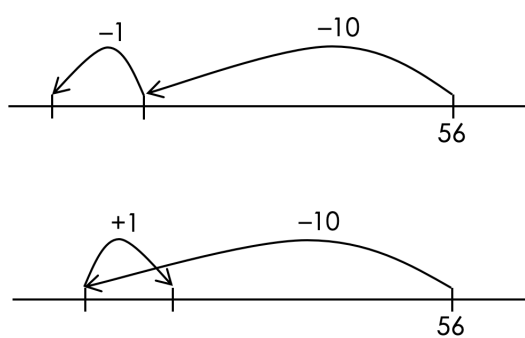
Rounding & Adjusting 4



<https://youtu.be/qyCQU1S6M8w>

Igama:

Ukufikelelanisa nokulungelelanisa: Iphepha lokusebenzela I

1. $46 + 40 = \square$	11. $21 - 3 = \square$
2. $57 - 10 = \square$	12. $28 + 3 = \square$
3. $32 - 3 = \square$	13. $26 + 30 = \square$
4. $71 - 2 = \square$	14. $115 + 50 = \square$
5. $167 - 70 = \square$	15. Phinda kabini 20 = \square
6. $38 = \square - 2$	16. $19 = \square - 1$
7. $68 + \square = 70$	17. $32 - \square = 30$
8. $99 = 100 - \square$	18. $49 + \square = 50$
9. Phinda kabini 200 = \square	19. $27 = 30 - \square$
<p>10. <i>Biyela umgca manani obonisa $28 + 9$</i></p> 	<p>20. <i>Biyela umgca manani obonisa $56 - 9$</i></p> 

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokwenza ubalo. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Rounding & Adjusting 5



https://youtu.be/VQ8va_RuHBQ

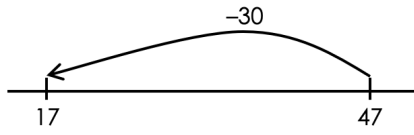
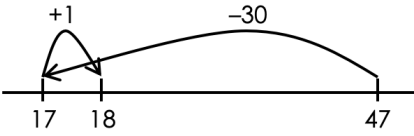
UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 5

Umzuzu om-1 ubalo ngeNtloko

- a. Biyela igumbi lokufundela ama-20 ngaphantsi, ama-30 ngaphantsi.
b. IPop-Fiz: Isiphindwa se-10 esikufutshane

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokufikelelanisa nokulungelelanise ekuthabatheni.

<p>Utishala: Singayisebenzisa njani indlela yokufikelelanisa nokulungelelanisa ukusombulula ama-47 – 29?</p> <p>Ukuba abafundi bafumana ubunzima ukuchaza indlela yokwenza, buza:</p> <p>Utishala: Ngubani inani elinganiki ngxaki ama-29 akufutshane kulo?</p> <p>Abafundi: 30</p> <p>Utishala: Ukuba sifikelelanisa ama-29 kuma-30 ze sitsibe ama-30 sibuya umva ukusuka kuma-47? Siyakuba phi?</p> <p>Abafundi: 17 (bonisa oku ebhodini)</p> <p>Utishala: Ingaba i-17 yimpendulo yokugqibela okanye kufuneka silungelelanisile?</p> <p>Buza abafundi bachaze ingqiqo yokulungelelanisa impendulo: Sithabathe unye owongeziweyo, ke masidibanise u inye kwimpendulo sizokufumana i-18.</p> <p>Bonisa oku kumgca manani ebhodini.</p> <p>Xelela abafundi le ndlela yokwenza isebenza kakuhle xa inani lithatyathwayo likufutshane kwinani elinganiki ngxaki.</p>	<p>47 – 29</p>  <p>Dibanisa kumgca manani:</p> 
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Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$28 - 19 \quad 54 - 39$$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama-28 – 19, ndifikelelanise i-19 kuma-20 ze ndathabatha ama-20 kuma-28 ukufumana i-8; ndalungelelanisa impendulo ngokudibanisa u i-1, impendulo li-9.” Njengokuba uphinda indlela yokwenza yabafundi gxininisa ekufikelelaniseni nasekulungelelaniseni.

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 6

Umzuzu om-1 ubalo ngeNtloko

a. IPop-Fiz: Ungatsibela njani kwisiphindwa esikufutshane se-10 (khetha amanani anemivo 7, 8 kunye ne-9, umzekelo. $27 \rightarrow 30$; $58 \rightarrow 60$; $49 \rightarrow 50$)

b. Ubalo olukhawulezileyo: Dibanisa 1, 2 okanye 3

“Ngubani ama ...?”

Utishala: $61 + 2 \rightarrow$ Abafundi: 63

Utishala: $52 + 3 \rightarrow$ Abafundi: 55

Utishala: $77 + 1 \rightarrow$ Abafundi: 78

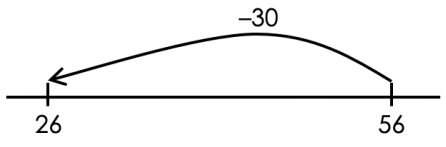
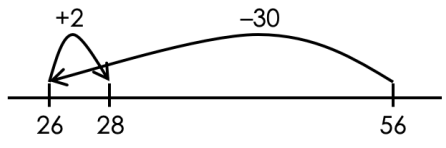
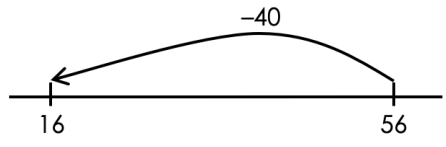
Utishala: $69 + 2 \rightarrow$ Abafundi: 71

Utishala: $58 + 3 \rightarrow$ Abafundi: 61

njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sazisa indlela yokwenza ukufikelelanisa nokulungelelanisa uthabatha.

<p>Utishala: Xa sithabatha ama-28 okanye ama-38 okanye ama-48 kwinani, singayisebenzisa indlela yokwenza ukufikelelanisa kunye nokulungelelanisa? Singayisebenzisa njani ukusombulula ama-56 – 28?</p> <p>Ukuba abafundi bafumana ubunzima ukuchaza indlela yokwenza, buza:</p> <p>Utishala: Ngubani inani elinganiki ngxaki ama-28 akufutshane kulo?</p> <p>Abafundi: 30</p> <p>Utishala: Ukuba sifikelelanisa ama-28 kuma-30 ze sitsibe ama-30 sibuya umva ukusuka kuma-56? Siyakuba phi?</p> <p>Abafundi: 26(bonisa oku ebhodini)</p> <p>Utishala: Silungelelanisa njani ama-26?</p> <p>Buza abafundi bachaze ingqiqo yokulungelelanisa impendulo: sithabathe isibini esongeziweyo, ngoko masidibanise isibini kwimpendulo ukufumana ama-28.</p> <p>Bonisa oku kumgca manani ebhodini.</p>	<p>$56 - 28$</p>  <p>Dibanisa kumgca manani:</p> 
<p>Utishala: Xa sithabatha ama-27 okanye ama-37 okanye ama-47 kwinani, singayisebenzisa na indlela yokwenza ukufikelelanisa nokulungelelanisa? Singayisebenzisa njani ukusombulula ama-56 – 37?</p> <p>Ukuba abafundi basokola indlela yokuchaza indlela yokwenza, buza:</p>	<p>$56 - 37$</p>  <p>Dibanisa kumgca manani:</p>

Utishala: Ngubani inani elinganiki ngxaki elikufutshane kuma-37?

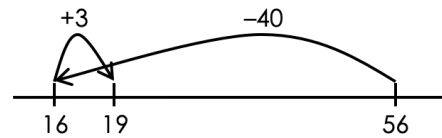
Abafundi: 40

Utishala: Ukuba sifikelelanisa ama-37 kuma-40 ze sitsibe ama-40 sibuya umva ukusuka kuma-56? Siyakuba phi?

Abafundi: 16 (bonisa oku ebhodini)

Utishala: Sililungelelanisa njani i-16. Buza abafundi bachaze ingqiqo yokulugelelanisa impendulo: sithabathe isithathu esongeziweyo, ngoko masidibanise isithathu kwimpendulo ukufumana i-19.

Bonisa oku kungca manani ebhodini.



Umsebenzi womfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$45 - 18 \quad 84 - 48 \quad 65 - 27$$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama-45 – 18, ndifikelelisa i-18 kuma-20 ze ndithabathe ama-20 kuma-45 ukufumama ama-25; ukuze ndilungelelanise impendulo ngokudibanisa isi-2, impendulo ngama-27.” Njengokuba uphinda indlela yokwenza yabafundi gxininisa ukufikelelanisa nasekulungelelaniseni

Ividiyo encedisayo

Rounding & Adjusting 6



<https://youtu.be/kG9NCQ9gBPY>

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 7**Umzuzu om-1 ubalo ngeNtloko**

- a. IPop-Fiz: Isiphindwa esikufutshane se-10
 b. IPop-Fiz: Ungatsibela njani kwisiphindwa esikufutshane se-10

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokufikelelanisa nokulungelelanisa ekubaleni apho inani elingaphezu kwelinye kusetyenziswa ukufikelela.

<p>Utishala: Singaphinda sisebenzise ukufikelelanisa nokulungelelanisa xa amanani omabini ekufutshane kwinani elinganiki ngxaki, umzekelo. 19 + 39.</p> <p>Bonisa abafundi indlela yokwenza ukufikelelanisa nokulungelelanisa ebhodini 19 + 39.</p> <p>Njengokuba ubhala ebhodini, cacisa:</p> <p>Utishala: Singafikelela kuwo omabini amanani kuma-20 nama-40 ze siwadibanise ukufumana ama-60. Sidibanise e-1 kwinani ngalinye ke ngoku masilungelelanise ngokuthabatha isi-2 kuma-60 ukufumana ama-58.</p> <p><i>Qaphela: Xa silungelelanisa omabini amanani, sibonisa oko ngokubhala phantsi ubalo kunokuba ibekumngca manani.</i></p>	$19 + 39 \text{ (omabini fikelelanisa)}$ $= 20 + 40 \text{ ze ulungelelanise} - 2$ (- 1 kwenye) $= 60 - 2$ $= 58$
<p>Utishala: Ungakusebenzisa njani ukufikelelanisa nokulungelelanisa ama-28 + 49?</p> <p>Bonisa abafundi indlela yokwenza ukufikelelanisa nokulungelelanisa kolu balo ebhodini.</p>	$28 + 49 \text{ (omabini fikelelanisa)}$ $= 30 + 50 \text{ ze ulungelelanise} - 3$ (- 2 kunye - 1) $= 80 - 3$ $= 77$
<p>Utishala: Ungasebenzisa njani ukufikelelanisa nokulungelelanisa ama-57 + 59 + 48?</p> <p>Bonisa abafundi indlela yokufikelelanisa nokulungelelanisa olu balo ebhodini.</p>	$57 + 59 + 48 \text{ (fikelelanisa onke)}$ $= 60 + 60 + 50 \text{ kunye}$ $\text{nokulungelelanisa} - 6$ (- 3, - 1, - 2) $= 170 - 6$ $= 164$

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$38 + 29 \quad 57 + 28 \quad 19 + 19 + 19$$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama-38 + 29, ndifikelelanisise ama-38 kuma-40 ze ama-29 kuma-30 ze ndidibanise ama-40 nama-30 ukufumana ama-70, ze ndilungelelanise impendulo ngokuthabatha isi-3, ke impendulo ngama-67.” Njengokuba uphinda indlela yokwenza yabafundi gxininisa kukufikelelanisa nasekulungelelaniseni.

Ukuba abafundi bayasokola ukucacisa indlela ababale ngayo, bacele babonise indlela abayisebenzisileyo beyibhalile (ngokwale ndlela kuboniswe ngayo ebhodini).

Umsebenzi wasekhaya: Iphepha lokusebenzela 2

Ukuphela kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 2.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko

Ividiyo encedisayo

Rounding & Adjusting 7



<https://youtu.be/0TOGmefwNxQ>

Igama:

Ukufikelelanisa nokulungelelanisa: Iphepha lokusebenzela 2

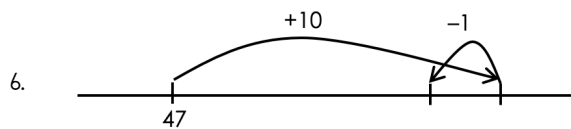
1. $56 + 29 = \square$

2. $54 - 38 = \square$

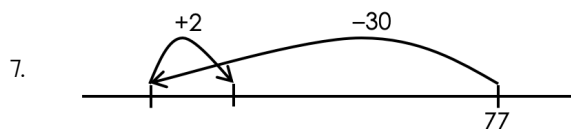
3. $45 + 37 = \square$

4. $325 - 99 = \square$

5. $47 + 49 + 48 = \square$



$$47 + \square = 47 + 10 - 1$$



$$77 - 28 = 77 - 30 + \square$$

8. $66 + 28 = 66 + \square - 2$

9. $95 - 39 = 95 - \square + 1$

10. Biyela isivakalisi samanani esinika impendulo efana nale:

$80 - 39$

$80 + 40 - 1$

$80 + 40 + 1$

$80 - 40 + 1$

$80 - 40 - 1$

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokwenza ubalo. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

UKUFIKELELANISA NOKULUNGELELANISA: ISIFUNDO ESIQALAYO 8**Umzuzu om-1 ubalo ngeNtloko**

Biyela igumbi ama-20 ngaphezulu, ama-30 ngaphezulu, ama-30 ngaphantsi, ama-40 ngaphantsi

Ulandelelwano lomsebenzi

Kwesi sifundo sikhetha eyona ndlela yokwenza esiza kuyisebenzisa, ze usebenzise ukufikelelanisa nokulungelelanisa ubalo apho kuyeyona ilula.

<p>Bhala iiperi ezine zezibalo ebhodini ngale ndlela ibonisiweyo ze ubuze abafundi ukuba bathi:</p> <ul style="list-style-type: none"> yeyiphi abaza kuyisebenzisa indlela eyokufikelelanisa nokulungelelanisa yeyiphi abaza kuzisebenzisa iindlela ezahlukileyo ezifana (indlela yokwenza utsibo, ukuvala ngamashumi, kunye nokuphinda kabini) <p>Buza abafundi banike izizathu zokhetho lwabo.</p> <p><i>Qaphela: 99 + 99 wenziwa ngokufana 100 + 100 – 2 usebenzisa ukufikelelanisa, ukuphinda kabini (phinda kabini 100 ngama 200) ze ulungelelanise.</i></p> <p>Xoxa nabafundi uthi xa bethe bazi iindlela ezininzi zokwenza, bayakukwazi ukukhetha nokuba yeyiphi indlela ekhawulezayo abangayisebenzisa ze badibanise nezinye iindlela zokwenza.</p>	<p>38 + 49</p> <p>22 + 36</p> <p>38 – 13</p> <p>47 – 29</p> <p>29 + 38 + 39</p> <p>14 + 24 + 33</p> <p>99 + 99</p> <p>45 + 45</p>
<p>Buza abafundi baxoxe ukuba baya kusebenzisa njani na ukufikelelanisa nokulungelelanisa ukusombulula ezi:</p> <p>38 + 49</p> <p>47 – 29</p> <p>29 + 38 + 39</p> <p>Abafundi mabathethe into efana nale:</p> <ul style="list-style-type: none"> fikelelanisa ama-38 kuma-40 ze ama-49 kuma-50, dibanisa ama-40 nama-50 ukufumana ama-90, ze ulungelelanise ngokuthabatha isi-3 kuma-90. fikelelanisa ama-29 kuma-30, thabatha ama-30 kuma-47 ukufumana i-17, ze ulungelelanise ubuyisele i-1 ngokudibanisa ufumane i-18. Fikelelanisa ama-29 kuma-30 ze ufikelelanise omabini ama-38 nama-39 abengama-40, ze udibanise ama-30 nama-40 ze ama-40 	<p>38 + 49</p> <p>47 – 29</p> <p>29 + 38 + 39</p>

ukufumana i-110 ze ulungelelanise ngokuthabatha isi-4 ukufumana i-106.	
<p>Buza abafundi bagqibezele ngomlomo ezi zivakalisi:</p> <ul style="list-style-type: none"> • Ukudibanisa i-18 kwinani, ndidibanisa _____ ze ndithabathe _____. • Ukuthabatha i-18 kwinani ndithabatha _____ ze ndidibanise _____. <p>Buza abafundi bafakele ezibhokisini ezibhalwe ebhodini ngokwale ndlela ibonisiweyo.</p>	<p>Dibanisa ama-38 anika impendulo efana na: + <input type="checkbox"/> - <input type="checkbox"/></p> <p>Thabatha ama-49 anika impendulo efana na: - <input type="checkbox"/> + <input type="checkbox"/></p> <p>Dibanisa ama-99 anika impendulo efana na: + <input type="checkbox"/> - <input type="checkbox"/></p> <p>Thabatha ama-28 anika impendulo efana na: - <input type="checkbox"/> + <input type="checkbox"/></p>

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko*:

$$29 + 48 \quad 37 - 28 \quad 39 + 28 + 49$$

Abafundi mabacacise iingcinga zabo, umzekelo. “ama-29 + 48, ndifikelelisa ama-29 kuma-30 kunye nama-48 kuma-50 ndandule ukudibanisa ama-50 nama-30 ukufumana ama-80, ukuze ndilungelelanise impendulo ngokuthabatha isi-3, impendulo ngama-57.” Njengokuba uphinda indlela yokwenza yabafundi gxininisa ekufikelelaniseni nasekulungelelaniseni

Ukuba abafundi bayasokola ukuchaza ubalo lwabo, babuze ukuba babonise indlela yabo ngokuyibhala.

Ividiyo encedisayo

Rounding & Adjusting 8



https://youtu.be/mij_d45rw00

Igama:

Ukufikelelanisa nokulungelelanisa: Emva kovavanyo

ICANDELO 1

Imizuzu 2 kweli phepha

1. $34 + 20 = \square$

11. $29 + 2 = \square$

2. $42 - 3 = \square$

2. $68 + 10 = \square$

3. $57 - 10 = \square$

3. $38 + 3 = \square$

4. $51 - 2 = \square$

4. $145 + 30 = \square$

5. $178 - 30 = \square$

5. $97 - 60 = \square$

6. $43 + 40 = \square$

6. $48 = \square - 2$

7. $29 = \square - 1$

7. $79 + \square = 80$

8. $37 + \square = 40$

8. Phinda kabini ama-50 = \square

9. $97 = 100 - \square$

9. Phinda kabini i-100 = \square

10. $88 + \square = 90$

20. $28 + \square = 30$

Itotali 20

Ukufikelelanisa nokulungelelanisa: Emva kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha

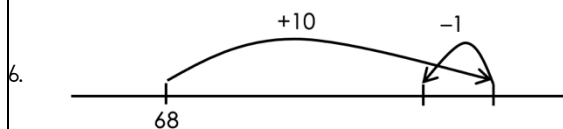
1. $34 + 19 = \square$

2. $54 - 29 = \square$

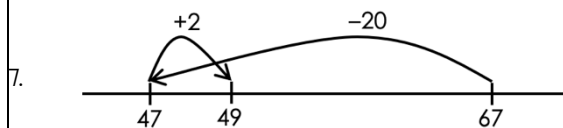
3. $27 + 98 = \square$

4. $234 - 99 = \square$

5. $97 + 98 + 99 = \square$



$68 + \square = 68 + 10 - 1$



$67 - 18 = 67 - 20 + \square$

8. $56 + 28 = 56 + \square - 2$

9. $84 - 39 = 84 - \square + 1$

10. Biyela isivakalisi senani esinika impendulo efana nama:

$60 - 29$

$60 - 30 + 1$

$60 + 30 + 1$

$60 + 30 - 1$

$60 - 30 - 1$

Itotali 10

UKUHLELA KWAKHONA

Intshayelelo

Isifundo esiqalayo kweli candelo sigxila ekuhleleni kwakhona kwiindlela ezahlukeneyo apho ukuhlela kwakhona (kutshintsha uhlelo lwamanani kubalo) kungenza ubalo lokudibanisa nokuphindaphinda kube lula ukulubala. Maxa wambi, oku kubandakanya ukufumana iindlela ezenza amanani anganiki ngxaki kubelula ukubala ngawo. Amanani anganiki ngxaki ngamanani ekulula ukusebenza ngawo, kwaye asoloko ebandakanya iziphindwa zeshumi. Eminye yemisebenzi akhokelwa ngutishala ebhodini kanti eminye abafundi kufuneka bazenzele ngokwabo.

Izakhono zokukhawuleza ukucinga

Kunezakhono zokukhawuleza ukucinga ezibini ekufuneka abafundi bezifundile indlela yokuhlela kwakhona:

- Ukukhumbula amanani adityanisiweyo, okanye ukwakha, ukwenza iziphindwa ze-10 (umzekelo. 6 kunye 4 okanye 3 kunye 7, kodwa kwakhona 16 kunye 4 okanye 32 kunye 18)
- ukukhumbula amanani adityanisiweyo angaphindaphindwa ukwenza iziphindwa ze-10 (umzekelo. 2×5 , 5×4).

Igama:

Ukuhlela kwakhona: Phambi kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

<p>1. Biyela amanani amabini athi xa edibene anike i-10. 7 4 2 3 9</p>	<p>11. $100 + 14 = \square$</p>				
<p>2. Biyela amanani amabini athi xa edibene anike-10. 5 4 1 6 8</p>	<p>12. $2 \times 5 = \square$</p>				
<p>3. $6 + \square = 10$</p>	<p>13. Biyela amanani amabini athi xa edibene anike ama-20. 8 14 12 3 19</p>				
<p>4. $9 + 11 = \square$</p>	<p>14. Biyela amanani amabini athi xa edibene anike ama-20. 15 4 1 16 8</p>				
<p>5. Biyela amanani amabini athi xa edibene anike i-100. 24 50 30 38 70</p>	<p>15. $50 \times 2 = \square$</p>				
<p>6. Biyela amanani amabini athi xa edibene anike i-100. 51 17 29 49 60</p>	<p>16. $140 + \square = 149$</p>				
<p>7. $20 = 8 + \square$</p>	<p>17. Biyela amanani amabini athi xa edibene anike ama-30. 18 14 12 7 19</p>				
<p>8. $\square + 3 = 20$</p>	<p>18. Biyela amanani amabini athi xa edibene anike ama-30. 10 14 9 16 13</p>				
<p>9. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;">21</td><td style="padding: 5px;"><input style="width: 40px; height: 20px;" type="text"/></td></tr><tr><td colspan="2" style="padding: 5px;">30</td></tr></table></p>	21	<input style="width: 40px; height: 20px;" type="text"/>	30		<p>19. $69 + \square = 100$ $\begin{array}{r} + \\ 69 \end{array}$</p>
21	<input style="width: 40px; height: 20px;" type="text"/>				
30					
<p>20. $56 + 30 = \square$</p>	<p>20. $22 + 18 = \square$</p>				
<p>Itotali 20</p>					

Ukuhlela kwakhona: Phambi kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha

1. $6 + 98 = \square$

2. $17 + 48 + 13 = \square$

3. $199 + 98 + 1 + 2 = \square$

4. $37 + 56 + 13 = \square$

5. $38 + 125 + 15 = \square$

6. $2 \times 7 \times 5 = \square$

7. $6 + 98 = 98 + \square$

8. $96 + 58 + 4 = 100 + \square$

9. $99 + 97 + 1 + \square = 200$

10. Biyela awona manani mabini anokudityaniswa kuqala kule seti:

37 88 12

Itotali 10

UKUHLELA KWAKHONA: ISIFUNDO ESIQALAYO 1**Umzuzu om-1 ubalo ngeNtloko**

Ndithi/uthi: Yenza i-10/Yenza ama-20

- a. Utishala ubiza inani elinye ze acacise kumfundi ukuba aphenndule ngenani elongezwayo kweli nani ukunika i-10.

Utishala: 6 → Umfundi 1: 4
 Utishala: 3 → Umfundi 2: 7
 Utishala: 2 → Umfundi 3: 8 njalo njalo...



- b. Utishala ubiza inani eliphakathi ko-1 nama-20 ze acacise kumfundi ukuba aphenndule ngenani elongezwayo kweli nani ukunika ama-20.


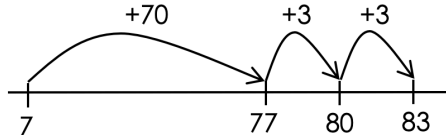
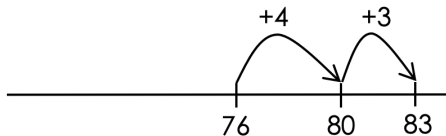
Utishala: 12 → Umfundi 1: 8
 Utishala: 13 → Umfundi 2: 7
 Utishala: 5 → Umfundi 3: 15 njalo njalo...

Yomibini le midlalo ingadlalwa ngamaqela. Ekuhambeni kwexesha kushushubezo kwimidlalo ingadluliselwa ekwenzeni ezinye iziphindwa zeshumi.

Ulandelelwano lomsebenzi

Kwesi sifundo sazisa indlela yokwenza ukuhlela kwakhona.

<p>Sebenzisa iminwe yakho ukubonisa $5 + 3$ ngale ndlela iboniswe ngezantsi kwaye ubhale $5 + 3$ ebhodini:</p>  <p>Utishala: Apha ndibonisa 5 iminwe kunye 3 ngaphezulu</p> <p>Izandla zakho mazitshintshane (jonga ngezantsi):</p>  <p>Utishala: Ngoku apha ndine $3 + 5$, kodwa ndisenenani elifana naleminwe ibonisiwayo. Ngoko siyabona ukuba $5 + 3 = 3 + 5$.</p> <p>Bhala $5 + 3 = 3 + 5$ ebhodini.</p> <p>Yenza eminye imizekelo usebenzisa iminwe izandla zakho mazitshintshane, umzekelo. $4 + 1 = 1 + 4$.</p>	<p>Bhala ebhodini:</p> <p>$5 + 3$</p> <p>$5 + 3 = 3 + 5$</p>
---	--

<p>Utishala: Sidibanisa amanani, indlela esihlela sidibanisa ngayo ayinamsebenzi.</p>	
<p>Bamba ibhegi enkulu kwesinye isandla, kunye nebhegi encinci kwesinye isandla.</p>  <p>Utishala: Ngoku yiba nomfanekiso ngqondweni wokuba ndineelekeke ezi-7 kule bhegi (bambela phezulu ibhegi encinci) kunye neelekeke ezingama-76 kule bhegi (bambela phezulu ibhegi enkulu), Ngoko ke ndine $7 + 76$ eelekeke.</p> <p>Izandla zakho mazitshintshane phambi kokuba uthi:</p> <p>Utishala: Ngoku apha ndinama $76 + 7$, kodwa ndisenenani elifanayo leelekeke.</p> <p>Ke $7 + 76 = 76 + 7$.</p>	<p>Bhala ebhodini:</p> $7 + 76 = 76 + 7$
<p>Utishala: Ingaba kuyakhawulezisa ukubala $7 + 76$ okanye $76 + 7$?</p> <p>Sebenzisa imigca manani emibini ukubonisa ukuba ukudibanisa isi-7 kuma-76 kuyakhawulezisa kunokudibanisa ama-76 kwisi 7 kuba imbalwa imitsi.</p> <p>Zoba imigca manani emibini ebhodini ukubonisa oku.</p> <p><i>Qaphela: Umgca manani ubonisa ukudibanisa isi-7 ngokudibanisa isi-4 kuma-76 ukufumana ama-80, ze aphinde adibanise isi-3. Abanye abafundi bangakwazi ukudibanisa isi-7 ngoko nangoko. Oku kulungile. Khumbuza abafundi bangabali ngoononye.</i></p>	<p>$7 + 76$</p>  <p>$76 + 7$</p> 

Imisebenzi yomfundi ngamnye

Loluphi ubalo apha ngezantsi omaluhlelwe kwakhona phambi kokuba kubalwe? Abafundi bangasebenzisa umgca manani ecaleni ukunceda bona ukuba bayakufuna oko.

$5 + 46$ $86 + 6$ $7 + 68$ $84 + 9$

Abafundi mabacacise iingcinga zabo, umzekelo. “isi-5 + 46, ndiyahlela kwakhona ze ndithi $46 + 5$, ndandule ukudibanisa isi-4 kuma-46 ukufumana ama-50 ze ndidibanise isi-1 kuma-50 impendulo ngama-51.”

Xelela abafundi bangabali ngoono-1.

Ividiyo encedisayo

Re-Ordering 1



<https://youtu.be/FIIM2einnNo>

Ividiyo encedisayo

Re-Ordering 2



<https://youtu.be/PdZN9ZWaoDQ>

UKUHLELA KWAKHONA: ISIFUNDO ESICALAYO 2**Umzuzu om-1 ubalo ngeNtloko**

Izibalo ezihambelanayo (umzekelo. $8 + 2 \rightarrow 10$; $18 + 2 \rightarrow 20$; $28 + 2 \rightarrow 30$)

Utishala ubhala izibalo zokuqala ebhodini:

$$8 + 2 = 10$$

Utishala uxelela abafundi ukuba siyazi isi-8 sidibanise isi-2 kulingana ne-10 ze ubuze impendulo kwizibalo ezihambelanayo. Chonga abafundi amabaphendule.

Utishala: $18 + 2 \rightarrow$ Umfundi 1: 20

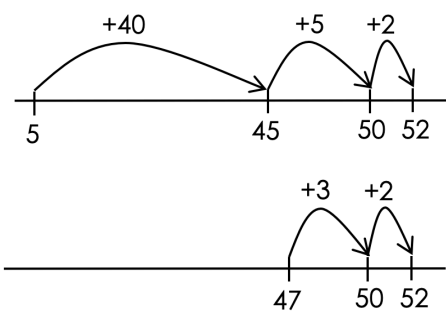
Utishala: $28 + 2 \rightarrow$ Umfundi 2: 30

Utishala: $38 + 2 \rightarrow$ Umfundi 3: 40

njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa indlela yokuhlela kwakhona.

<p>Ingxaki: $5 + 47$</p> <p>Utishala: Ukubala $5 + 47$ mhlawumbi singaqala kwisi-5 ze sitsibe ukuya phambili ngama-47, okanye singaqala kuma-47 ze sitsibe ukuya phambili ngesi-5. Yeyiphi eyakukhawuleza?</p> <p>Bonisa imigca manani yezindlela zombini ukuba kuyafuneka oko ebhodini ukubonisa ama-$47 + 5$ unemitsi embalwa.</p>	<p>$5 + 47$</p> 						
<p>Utishala: Ngoku jonga olu balo. Zibeke kumaqela amabini: ubalo apho sizakuhlela kwakhona ukuzenza ngokukhawuleza, kwaye ezo zingahlalayo zingahlala zinjalo.</p>	<p>Bhala:</p> <table style="width: 100%; text-align: center;"> <tbody> <tr> <td>$23 + 9$</td> <td>$15 + 47$</td> <td>$8 + 63$</td> </tr> <tr> <td>$68 + 7$</td> <td>$6 + 93$</td> <td>$57 + 26$</td> </tr> </tbody> </table> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center;"> <p>Hlela kwakhona</p> </div> <div style="border: 1px solid black; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center;"> <p>Suku hlela kwakhona</p> </div> </div>	$23 + 9$	$15 + 47$	$8 + 63$	$68 + 7$	$6 + 93$	$57 + 26$
$23 + 9$	$15 + 47$	$8 + 63$					
$68 + 7$	$6 + 93$	$57 + 26$					

Umsebenzi womfundi ngamnye

Abafundi ngoku mabasebenzise umgca manani ukubonisa olu balo lulandelayo. Abafundi mababhale bahlele kwakhona ubalo, babonise umgca manani babhale impendulo:

$$8 + 63 \quad 6 + 97$$

Abafundi mabacacise iingcinga zabo, umzekelo. “isi-8 + 63, ndiyaphinda ndihlele kwakhona ndithi $63 + 8$, ndandule ukudibanisa isi-7 kuma-63 ukufumana ama-70 ze ndidibanise i-1 kuma-70 impendulo ngama-71.”

Xelela abafundi bangabali ngoono-1.

UKUHLELA KWAKHONA: ISIFUNDO ESIQALAYO 3**Umzuzu om-1 ubalo ngeNtloko**

Biyela igumbi: Yenza amanani anganiki ngxaki

Utishala ubhala izivakalisi zamanani ezintathu ezihambelenayo ebhodini ezenza amanani anganiki ngxaki, umzekelo.

$$7 + 3 = 10 \quad 17 + 3 = 20 \quad 37 + 3 = 40$$

Hamba ujikeleza igumbi, buza abafundi ngezinye izivakalisi zamanani ezihambelana nale pateni eyenza amanani anganiki ngxaki. Bhala iimpendulo ebhodini.

Umfundi 1: $47 + 3 = 50$ → Umfundi 2: $87 + 3 = 90$ → Umfundi 3: $107 + 3 = 110$ → njalo njalo.

Abanye abafundi bangathi $17 + 13 = 30$ okanye $37 + 23 = 60$. Nezi zingabhalwa ebhodini.

Ulandelelwano lomsebenzi

Kwesi sifundo sifumana amanani anganiki ngxaki edityaniswa ukwenza ubalo lwamanani amathathu kubelula.

<p>Ingxaki: $26 + 17 + 4$</p> <p>Utishala: Singalwenza olu balo ngale ndlela, kodwa ndibona ukudityaniswa kwenani elinganiki ngxaki kwisivakalisi samanani. Kundawoni ukudityaniswa kwenani elinganiki ngxaki?</p> <p>Abafundi: $26 + 4 = 30$</p> <p>Utishala: 30 linani elinganiki ngxaki. Ngoku ngubani ama-$30 + 17$?</p> <p>Abafundi: 47</p> <p>Khuthaza abafundi ukuba basebenzise indlela yokwenza utsibo ngezintloko ukubala impendulo. Khumbuza abafundi bangabali ngoono-1.</p>	<p>$26 + 17 + 4$</p> $\begin{array}{r} 26 + 17 + 4 \\ \swarrow \quad \searrow \\ 30 \end{array}$ <p>$26 + 17 + 4 = 30 + 17$ $= 47$</p>
<p>Ingxaki: $69 + 47 + 3$</p> <p>Utishala: Fumana ubalo olunganiki ngxaki.</p> <p>Abafundi: $47 + 3 = 50$</p> <p>Utishala: 50 linani elinganiki ngxaki. Ngoku ngubani ama-$69 + 50$?</p> <p>Abafundi: 119</p> <p>Khuthaza abafundi ukuba basebenzise indlela yokwenza utsibo ngezintloko ukubala impendulo ama-$69 + 50$. Khumbuza abafundi bangabali ngoono-1.</p>	<p>$69 + 47 + 3$</p> $\begin{array}{r} 69 + 47 + 3 \\ \swarrow \quad \searrow \\ 50 \end{array}$ <p>$69 + 47 + 3 = 69 + 50$ $= 119$</p>

Imisebenzi yomfundi ngamnye

Abafundi mabazame le mizekelo ilandelayo ngokuqala bafumane inani elinganiki ngxaki belidibanisa ze babale impendulo:

$$25 + 18 + 5$$

$$44 + 38 + 12$$

$$3 + 65 + 27$$

Abafundi mabachaze indlela abacinga ngayo, umzekelo. “ama-25 + 18 + 5, kuqala ndidibanisa isi-5 kuma-25 ukufumana ama-30, ndandule ukudibanisa i-18 kuma-30 impendulo ngama-48.”

Xelela abafundi bangabali ngoono-1.

Ividiyo encedisayo

Re-Ordering 3



<https://youtu.be/SdnTj8PZX-o>

Ividiyo encedisayo

Re-Ordering 4



https://youtu.be/F_1UiS4QAQ4

UKUHLELA KWAKHONA: ISIFUNDO ESICALAYO 4**Umzuzu om-1 ubalo ngeNtloko**

Ndithi/Uthi: Yenza ama-30/Yenza ama-50

Ulandelelwano lomsebenzi

Kwesi sifundo siziqhelanisa nokufumana ukudibanisa inani elinganiki ngxaki kwalapha ekubaleni.

<p>Ingxaki: $15 + 47 + 5$ Utishala: Namhlanje sizakukhangela indlela yokudibanisa amanani anganiki ngxaki. Ingaba ikhona indlela yokudibanisa inani elinganiki ngxaki kolu balo lusebhodini? Abafundi: Ewe, $15 + 5 = 20$. Utishala: Ke $20 + 47 =$ ngubani? Abafundi: 67</p>	$\begin{array}{r} 15 + 47 + 5 \\ \swarrow \quad \searrow \\ 20 \\ 15 + 47 + 5 = 20 + 47 \\ = 67 \end{array}$
<p>Ingxaki: $38 + 27 + 12$ Utishala: Fumana udibaniso lwenani elinganiki ngxaki. Abafundi: $38 + 12 = 50$. Utishala: Ke $50 + 27 =$ ngubani? Abafundi: 77</p>	$\begin{array}{r} 38 + 27 + 12 \\ \swarrow \quad \searrow \\ 50 \\ 38 + 27 + 12 = 50 + 27 \\ = 77 \end{array}$
<p>Utishala: Ngawaphi amanani angangena ebhokisini ukwenza udibaniso lwenani elinganiki ngxaki? Abafundi mabanike amanani anesiphelo esisi-2 ukudibanisa nama-38 ukwenza inani elinganiki ngxaki, umzekelo. 2, 32, 82 njalo njalo. Kwakhona banganika amanani anesiphelo esisi-3 ukudibanisa nama-27 ukwenza inani elinganiki ngxaki, umzekelo. 3, 13, 53 njalo njalo.</p>	$38 + 27 + \square$ $38 + 27 + \boxed{32} \quad 38 + 27 + \boxed{13}$ $38 + 27 + \boxed{2} \quad 38 + 27 + \boxed{53}$

Imisebenzi yomfundi ngamnye

Abafundi ngoku mababhale phantsi amanani amahlanu ohlukileyo anokungena ebhokisini ukwenza udibaniso lwenani elinganiki ngxaki.

$$24 + 49 + \square \quad 33 + \square + 29$$

Abafundi mabacacise iingcinga zabo, umzekelo. "ama-24 + 49, ndingabhala inani eliphela ngo-1 ukulidibanisa nama-49 okanye ndingabhala inani eliphela ngesi-6 ukulidibanisa nama-24."

Umsebenzi wasekhaya: Iphepha lokusebenzela 1

Ukuphela kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 1.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko

Igama:

Ukuhlela kwakhona: Iphepha lokusebenzela I

<p>Biyela amanani amabini adityaniswa anike i-10.</p> <p>1. 8 6 2 7 5</p>	<p>11. $100 + 57 = \square$</p>				
<p>Biyela amanani amabini adityaniswa anike i-10.</p> <p>2. 7 5 4 6 9</p>	<p>12. $2 \times 6 = \square$</p>				
<p>3. $8 + \square = 10$</p>	<p>13. Biyela amanani amabini adityaniswa anike ama-30.</p> <p>9 16 21 7 12</p>				
<p>4. $7 + 13 = \square$</p>	<p>14. Biyela amanani amabini adityaniswa anike ama-30.</p> <p>17 5 13 8 12</p>				
<p>5. Biyela amanani amabini adityaniswa anike i-100.</p> <p>36 59 64 45 73</p>	<p>15. $60 \times 2 = \square$</p>				
<p>6. Biyela amanani amabini adityaniswa anike i-100.</p> <p>45 87 37 55 62</p>	<p>16. $120 + \square = 128$</p>				
<p>7. $20 = 8 + \square$</p>	<p>17. Biyela amanani amabini adityaniswa ama-20.</p> <p>11 14 6 7 19</p>				
<p>8. $\square + 6 = 20$</p>	<p>18. Biyela amanani amabini adityaniswa ama-20.</p> <p>15 12 8 4 11</p>				
<p>9. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 5px;">34</td> <td style="padding: 5px;"><input style="width: 40px; height: 20px;" type="text"/></td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">40</td> </tr> </table></p>	34	<input style="width: 40px; height: 20px;" type="text"/>	40		<p>19. $87 + \square = 100$</p> <p style="text-align: right;">$\begin{array}{r} + \\ 87 \end{array}$ _____</p>
34	<input style="width: 40px; height: 20px;" type="text"/>				
40					
<p>10. $26 + 12 = \square$</p>	<p>20. $24 + 16 = \square$</p>				

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo ngenye indlela yokwenza. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Re-Ordering 5



<https://youtu.be/dz79xkmVQy8>

UKUHLELA KWAKHONA: ISIFUNDO ESICALAYO 5**Umzuzu om-1 ubalo ngeNtloko**

Fumana umdibaniso wenani elinganiki ngxaki

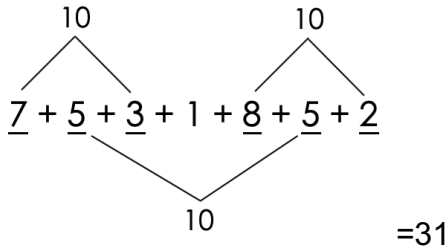
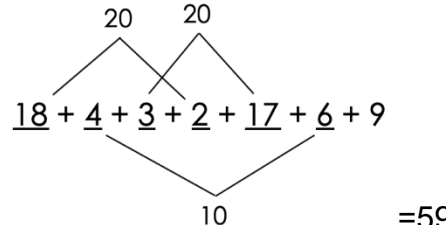
Utishala ubhala ebhodini:

23 2 8 25 36 17 21 19 44

Utishala ubiza inani, umzekelo. 13, abafundi mabakhetha inani libe linye kula manani asebhodini eliyakwenza inani elinganiki ngxaki xa lidityaniswe kwelo nani, umzekelo. 17 liyakwenza inani elinganiki ngxaki elingama- 30 xa lidityaniswe ne-13.

Ulandelelwano lomsebenzi

Kwesi sifundo sifumana umdibaniso wenani elinganiki ngxaki xa udibanisa amanani amaninzi.

<p>Ingxaki: $7 + 5 + 3 + 1 + 8 + 5 + 2$</p> <p>Utishala: Fumana umdibaniso wenani elinganiki ngxaki?</p> <p>Abafundi: $7 + 3 = 10$; $5 + 5 = 10$; $8 + 2 = 10$</p> <p>Phawula umdibaniso ebhodini njengokuba abafundi bewabiza.</p> <p>Utishala: Ke $7 + 5 + 3 + 1 + 8 + 5 + 2$ is $10 + 10 + 10 + 1$ ikunike 31.</p>	<p>$7 + 5 + 3 + 1 + 8 + 5 + 2$</p>  <p style="text-align: right;">=31</p>
<p>Ingxaki: $18 + 4 + 3 + 2 + 17 + 6 + 9$</p> <p>Utishala: Fumana umdibaniso wenani elinganiki ngxaki?</p> <p>Abafundi: $18 + 2 = 20$; $4 + 6 = 10$; $3 + 17 = 20$</p> <p>Phawula umdibaniso ebhodini njengokuba abafundi bewabiza.</p> <p>Utishala: Ke $18 + 4 + 3 + 2 + 17 + 6 + 9$ is $20 + 20 + 10 + 9$ ikunike 59</p>	<p>$18 + 4 + 3 + 2 + 17 + 6 + 9$</p>  <p style="text-align: right;">=59</p>

Imisebenzi yomfundi ngamnye

Abafundi kufuneka ngoku bazame lemizekelo ilandelayo *ngezentloko* ngokufumana umdibaniso wenani elinganiki ngxaki ze benze ubalo:

$6 + 3 + 2 + 4 + 9 + 8$ $27 + 32 + 16 + 3 + 8$

Abafundi mabachaze iingcinga zabo, umzekelo. “umzekelo wokuqala, ndidibanise isi-6 kwi-4 ukufumana i-10, ndandule ukudibanisa isi-2 kwi-8 ukufumana i-10, ndadibanisa isi-3 kunye ne-9 ukufumana i-12 ne-10 dibanisa i-10 dibanisa i-12 impendulo ngama-32.”

Xelela abafundi bangabali ngoono-1.

UKUHLELA KWAKHONA: ISIFUNDO ESIQALAYO 6

Umzuzu om-1 ubalo ngeNtloko

IPop-Fiz: Phindaphinda ngesi-5

Utishala uthi ‘pop’ ze abafundi bathi ‘fiz’; Ke utishala ubiza inani, ze abafundi baphendule ngenani liphindaphindwe ngesi-5.

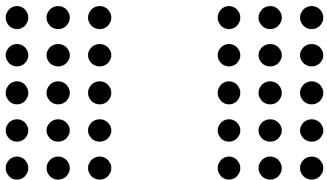
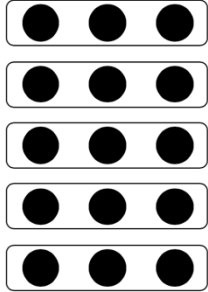
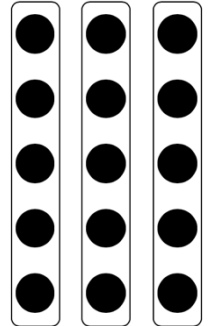
- Utishala: pop → Abafundi: fiz
- Utishala: 2 → Abafundi: 10
- Utishala: pop → Abafundi: fiz
- Utishala: 3 → Abafundi: 15
- Utishala: pop → Abafundi: fiz
- Utishala: 8 → Abafundi: 40
- Utishala: pop → Abafundi: fiz
- Utishala: 9 → Abafundi: 45 njalo njalo...

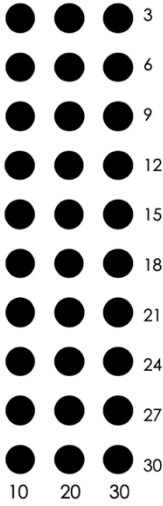
Lo mdlalo ungadlalwa kuba beziqhelanisa naziphi na iziphindwa. Utishala qha kufuneka acacise leliphi inani afuna abafundi baliphindaphinde kwasekuqaleni komdlalo.

Ulandelelwano lomsebenzi

Kwesi sifundo sazisa ukuhlela kwakhona ngokuphindaphinda.

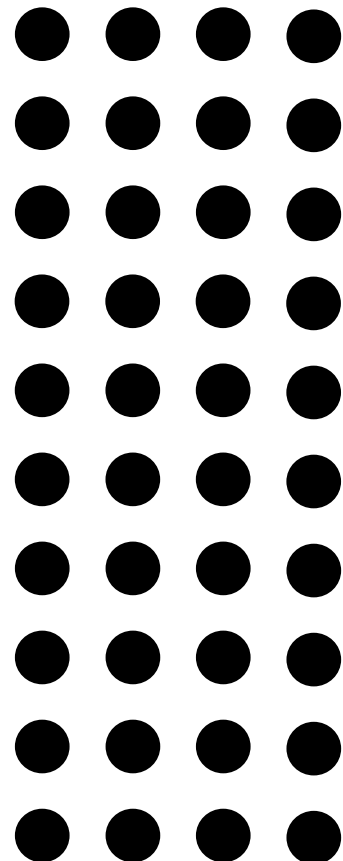
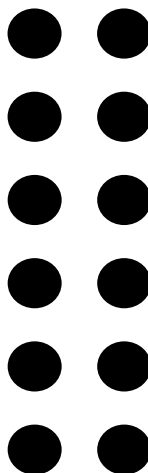
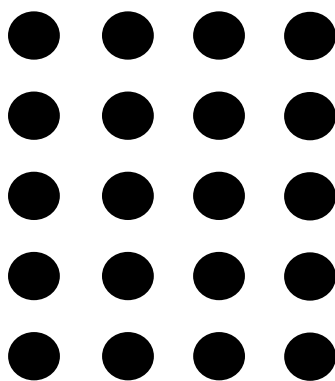
Qaphela: Imiqolo yamachokoza kunye neekholam zikhona kwincwadi enento yonke.

<p>Ncamathisela amaphepha amancinci amabini anemiqolo emi-5 yamachokoza ama-3 ebhodini. Yenza abafundi ukuba bavumelane ukuba iyafana.</p> <div style="display: flex; justify-content: space-around; align-items: center;">  </div> <p>Sebenzisa iphepha elininci lokuqala, khomba ukuba sinemiqolo emi-5 yamachokoza ama-3 ngokubiyela umqolo ngamnye, ze ubhale 5 x 3 ebhodini.</p> <p>Utishala: Lilonke sibona kukho 3, 6, 9, 12, 15. (khomba kumqolo ngamnye njengokuba ubala)</p> <p>Sebenzisa iphepha elincinci lesibini elineshi-5 siphindwe ngesi-3 soluhlu, khomba ukuba sineshi-3 semiqolo emi-5 ngokubiyela ikholam nganye ze sibhale 3 x 5.</p> <p>Utishala: Lilonke sibona kukho 5, 10, 15 (khomba kwikholam nganye njengokuba ubala). Ngoko sibona $5 \times 3 = 3 \times 5$. Ngalandlela besenze ngayo ekudibaniseni, singatshintsha ukuhlela ngokuphindaphinda.</p>	<div style="text-align: center;">  <p>5 x 3</p> </div> <div style="text-align: center; margin-top: 20px;">  <p>3 x 5</p> </div> <p style="text-align: center; margin-top: 20px;">$5 \times 3 = 3 \times 5$</p>
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<p>Ncamathisela iphepha elincinci elinemiqolo eli-10 namachokoza ama-3.</p> <p>Utishala: Masibale ukuba mangaphi amachokoza alapha ewonke (khomba kwimiqolo).</p> <p>Abafundi: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30.</p> <p>Utishala: Masiqukumbele ukuhlela ze sibale ngale ndlela (ukhomba kwiikhohlam).</p> <p>Abafundi: 10, 20, 30</p> <p>Utishala: Ingaba sikhawulezisile ukubala konke oku (bonisa ezantsi iziphindwa zesi-3) okanye bala oku (bonisa uxwesa iziphindwa ze-10)?</p> <p>Abafundi mabavumelane ukuba bekulula kwaye kukhawuleza ukwenza 10, 20, 30.</p>	
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Umsebenzi womfundi ngamnye

Abafundi ngoku mababhale izibalo ezibini zeziphindwa ezinokwenziwa ukubala inani lamachokoza kumfanekiso ongezantsi. Abafundi mabakhethe ukuba loluphi ubalo olulula kubo ukulwenza. Olu luhlu lwamachokoza lukhona kwincwadi enento yonke kwaye lungasetyenziswa ebhodini.



Ividiyo encedisayo

Re-Ordering 6



<https://youtu.be/cCVo9O9ibaE>

Ividiyo encedisayo

Re-Ordering 7



<https://youtu.be/ZMaAhLcdAQo>

UKUHLELA KWAKHONA: ISIFUNDO ESIQALAYO 7**Umzuzu om-1 ubalo ngeNtloko**

IPop-Fiz: Phindaphinda nge-10

Ulandelelwano lomsebenzi

Kwesi sifundo sifumana ukudibanisa amanani anganiki ngxaki kwalapha kuphindaphindo ngamanani amathathu.

<p>Ingxaki: $2 \times 7 \times 5$</p> <p>Utishala: Singalwenza olu balo ngale ndlela, kodwa ndibona udibaniso lwamanani anganiki ngxaki. Luphi udibaniso lwenani elinganiki ngxaki?</p> <p>Abafundi: $2 \times 5 = 10$</p> <p>Utishala: I-10 linani elinganiki ngxaki. Masilisebenzise ukwenza ubalo.</p> <p>Bhala $2 \times 7 \times 5 = 2 \times 5 \times 7$ ebhodini.</p> <p>Utishala: Siyazi $2 \times 5 = 10$. Ngubani 10×7?</p> <p>Mamela abafundi abayaziyo le mpendulo, okanye abakwazi ukubala ngotsibo ngama-10. Khumbuza abafundi bangabali ngoono-1.</p> <p>Abafundi: 70</p>	<div style="text-align: center;"> $\begin{array}{c} 2 \times 7 \times 5 \\ \diagdown \quad \diagup \\ 10 \end{array}$ </div> <div style="text-align: center; margin-top: 20px;"> $2 \times 7 \times 5 = 10 \times 7$ $= 70$ </div>
--	---

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabasebenzise udibaniso lwamanani anganiki ngxaki ukuphendula ezi zibalo zilandelayo:

$$2 \times 6 \times 5 \quad 5 \times 8 \times 2 \quad 9 \times 2 \times 5$$

Abafundi mabacacise iingcinga zabo, umzekelo. "isi-2 x 6 x 5, ndiyayazi ukuba isi-2 siphindaphindwe ngesi-5 lishumi, kunye i-10 liphindaphindwe ngesi-6 ngama-60, impendulo ngama-60."

Qaphela: Abafundi bangeza nezinye iindlela zokwenza oku ngokukhawuleza. Umzekelo, umfundo angenza $2 \times 6 \times 5$ ngokuthi $6 \times 5 = 30$ ze aphinde kabini ama-30 ngama-60. Olu lubalo olufanelekileyo.

Umsebenzi wasekhaya: Iphepha lokusebenzela 2

Ukuphela kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 2.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko

Igama:

Ukuhlela kwakhona: Iphepha lokusebenzela 2

1. $8 + 94 = \square$

2. $11 + 27 + 19 = \square$

3. $99 + 198 + 2 + 1 = \square$

4. $48 + 23 + 12 = \square$

5. $56 + 115 + 25 = \square$

6. $2 \times 9 \times 5 = \square$

7. $3 \times 10 = 10 \times \square$

8. $9 + 93 = 93 + \square$

9. $91 + 37 + 9 = 100 + \square$

10. $99 + 96 + 1 + \square = 200$

11. Biyela awona manani mabini azakudityaniswa kuqala kule seti:

74 26 83

12. Biyela awona manani mabini anokuphindaphindwa kuqala kule seti:

2 38 5

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokwenza. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

Ividiyo encedisayo

Re-Ordering 8



<https://youtu.be/Sh0e84cPf2U>

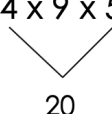
UKUHLELA KWAKHONA: ISIFUNDO ESIQALAYO 8**Umzuzu om-1 ubalo ngeNtloko**

IPop-Fiz: Phindaphinda ngesi-5

IPop-Fiz: Phindaphinda nge-10

Ulandelelwano lomsebenzi

Kwesi sifundo sifumana udityaniso lwenani elinganiki ngxaki kubalo ngokuphindaphinda.

<p>Ingxaki: $4 \times 9 \times 5$</p> <p>Utishala: Singalwenza olu balo ngale ndlela, kodwa ndibona udityaniso lwenani elinganiki ngxaki. Luphi udityaniso lwenani elinganiki ngxaki?</p> <p>Abafundi: $4 \times 5 = 20$</p> <p>Utishala: Ama-20 linani elinganiki ngxaki. Masisebenzise oku ukuhlela kwakhona ubalo.</p> <p>Bhala $4 \times 9 \times 5 = 4 \times 5 \times 9$ ebhodini.</p> <p>Utishala: Singahlela kwakhona sibhale oku ngolu hlobo $4 \times 5 \times 9$. Siyazi $4 \times 5 = 20$. Masisebenze ama-20 $\times 9$ ngokubala ngama-20.</p> <p>Abafundi: 20, 40, 60, 80, 100, 120, 140, 160, 180.</p>	<div style="text-align: center;"> $4 \times 9 \times 5$  20 </div> <div style="text-align: center; margin-top: 20px;"> $4 \times 9 \times 5 = 4 \times 5 \times 9$ $= 20 \times 9$ $= 180$ </div>
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Imisebenzi yomfundi ngamnye

Abafundi ngoku mabasebenzise ukudibanisa inani elinganiki ngxaki ngokuhlela kwakhona ukuphendula ezingxaki zilandelayo:

$$4 \times 3 \times 5 \quad 4 \times 6 \times 5 \quad 5 \times 7 \times 4$$

Abafundi mabachaze iingcinga zabo, umzekelo. “ $4 \times 3 \times 5$, ndiyayazi 4 phindaphinda ngesi-5 ngamashumi amabini, kunye 20 phindaphinda ngesi-3 ngama-60, impendulo ngama-60.”

Qaphela: Abafundi bangeza nezinye iindlela zokwenza oku ngokukhawulezisa. Umzekelo, umfundi angenza $4 \times 3 \times 5$ ngokuthi $4 \times 3 = 12$ kunye $12 \times 5 = 60$. Olu lubalo olufanelekileyo.

Igama:

Ukuhlela kwakhona: Emva kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

<p>1. Biyela amanani amabini adityabiswa anike i-10. 7 4 2 3 9</p>	<p>11. $100 + 32 = \square$</p>				
<p>2. Biyela amanani amabini adityaniswa anike i-10. 5 4 1 6 8</p>	<p>12. $2 \times 5 = \square$</p>				
<p>3. $7 + \square = 10$</p>	<p>13. Biyela amanani amabini adityaniswa anike ama-20. 8 14 12 3 19</p>				
<p>4. $9 + 11 = \square$</p>	<p>14. Biyela amanani amabini adityaniswa anike ama-20. 15 4 1 16 8</p>				
<p>5. Biyela amanani amabini adityaniswa anike i-100. 24 50 30 38 70</p>	<p>15. $50 \times 2 = \square$</p>				
<p>6. Biyela amanani amabini adityaniswa anike i-100. 51 17 29 49 60</p>	<p>16. $140 + \square = 149$</p>				
<p>7. $20 = 8 + \square$</p>	<p>17. Biyela amanani amabini adityaniswa anike ama-30. 18 14 12 7 19</p>				
<p>8. $\square + 3 = 20$</p>	<p>18. Biyela amanani amabini adityaniswa anike ama-30. 10 14 9 16 13</p>				
<p>9. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;">21</td><td style="padding: 5px;"><input style="width: 40px; height: 20px;" type="text"/></td></tr><tr><td colspan="2" style="padding: 5px; text-align: center;">30</td></tr></table></p>	21	<input style="width: 40px; height: 20px;" type="text"/>	30		<p>19. $69 + \square = 100$ $\frac{1}{69}$ _____</p>
21	<input style="width: 40px; height: 20px;" type="text"/>				
30					
<p>10. $56 + 30 = \square$</p>	<p>20. $22 + 18 = \square$</p>				

Itotali 20

Ukuhlela kwakhona: Emva kovavanyo

ICANDELO 2

Imizuzu 3 kweli phepha

1. $8 + 97 = \square$

2. $27 + 48 + 23 = \square$

3. $199 + 98 + 1 + 2 = \square$

4. $37 + 56 + 13 = \square$

5. $38 + 125 + 15 = \square$

6. $2 \times 7 \times 5 = \square$

7. $8 + 97 = 97 + \square$

8. $96 + 58 + 4 = 100 + \square$

9. $99 + 97 + 1 + \square = 200$

10. Biyela awona manani mabini angadityaniswa kuqala kule seti:

43 36 14

Itotali 10

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA

Intshayelelo

Kwesi sifundo siqalayo kugxilwe kulwalamano phakathi kokudibanisa nokuthabatha. Sisebenzisa olu lwalamano ukutshintsha ubalo ukusuka ekudibaniseni ukuya ekuthabatheni, kunye nasekuthabatheni ukuya ekudibaniseni, njengendlela yokwenza ubalo. Oku kubandakanya ukuqonda ulwalamano phakathi kwamaphawu amabini okubala kunye nokuqonda ulwalamano phakathi kwezivakalisi zamanani ekudibaniseni nasekuthabatheni. Eminye imisebenzi ikhokelwa ngutishala ebhodini ze eminye yeyabafundi ukuba bazenzele bodwa.

Izakhono zokukhumbula ngokukhawuleza

Kunezakhono zokukhumbula ngokukhawuleza ezintathu ekufuneka abafundi befunde ulwalamano phakathi kokudibanisa nokuthabatha njengendlela yokwenza ubalo:

- ukudibanisa amanani anedijithi enye ukuya kwiidijithi ezimbini zamanani, kubandakanya ukubala ngamashumi (umzekelo. $28 + 4$; $39 + 2$)
- ukuthabatha amanani anedijithi enye ukusuka kwiidijithi ezimbini zamanani, kubandakanya ukubala ngamashumi (umzekelo. $33 - 5$; $52 - 4$)
- ukusebenza ngokutyibilikayo nangokulula ngeedayagram ukuzama ukufumana indlela elula yokusombulula ubalo.

Igama:

Ukuqhagamshela ukudibanisa nokuthabatha: Phambi kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

<p>1. $88 + \square = 92$</p>	<p>Fakela i-15, 5 kunye nama-20 kwizivakalisi zamanani ezingezantsi (II - I4).</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">15</td> <td style="padding: 5px;">5</td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;">20</td> </tr> </table>	15	5	20	
15	5				
20					
<p>2. $42 - 4 = \square$</p>	<p>II. $\square - 5 = \square$</p>				
<p>3. $86 + 5 = \square$</p>	<p>12. $\square + 5 = \square$</p>				
<p>4. $17 + \square = 23$</p>	<p>13. $\square - \square = 5$</p>				
<p>5. $199 + \square = 201$</p>	<p>14. $5 + \square = \square$</p>				
<p>Fakela la manani mathathu kwiibhokisi ezichanekileyo: II - 9 = 2.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">\square</td> <td style="padding: 5px;">\square</td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;">\square</td> </tr> </table>	\square	\square	\square		<p>15. $99 + \square = 102$</p>
\square	\square				
\square					
<p>6. \square</p>	<p>16. $21 - \square = 19$</p>				
<p>7. \square</p>	<p>17. $37 + 6 = \square$</p>				
<p>8. $302 - 5 = \square$</p>	<p>18. $47 + \square = 55$</p>				
<p>9. $29 + \square = 34$</p>	<p>19. $34 - \square = 29$</p>				
<p>10. $91 - \square = 89$</p>	<p>20. $75 + \square = 82$</p>				
<p>Itotali 20</p>					

Ukuqhagamshela ukudibanisa nokuthabatha: Phambi kovavanyo					
ICANDELO 2	Imizuzu 3 kweli phepha				
1.	$92 - 88 = \square$				
2.	$4 + \square = 402$				
3.	$\square - 82 = 5$				
4.	$82 - 75 = \square$				
5.	$201 - 199 = \square$				
6.	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px; height: 30px;">\square</td> <td style="width: 150px; text-align: center;">99</td> </tr> <tr> <td colspan="2" style="text-align: center;">102</td> </tr> </table>	\square	99	102	
\square	99				
102					
7.	$27 + 15 = 42$ $42 + 15 = 57$ $42 - 15 = \square$				
8.	$24 + 42 = 66$ $24 + 18 = 42$ $\square + 24 = 42$				
Sebenzisa amanani amathathu angezantsi kwizibalo ezimbini ezithabathayo ezahlukeneyo:					
$83 + 37 = 120$					
9.	$\square - \square = \square$				
10.	$\square - \square = \square$				
Itotali 10					

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 1

Umzuzu om-1 ubalo ngeNtloko

Dibanisa ngokukhawuleza: idijithi e-1 kunye namanani azidijithi ezi-2

Khetha inani elizidijithi ezi-2 ze ubuze abafundi ukuba badibanise idijithi enye amanani ahlukeneyo kuzo.

Utishala: 29 + 4 → Abafundi: 33
 Utishala: 29 + 2 → Abafundi: 31
 Utishala: 29 + 5 → Abafundi: 34
 Utishala: 29 + 7 → Abafundi: 36 njalo njalo...

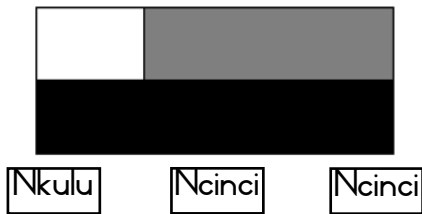
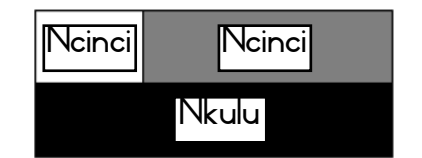
Utishala: 37 + 5 → Abafundi: 42
 Utishala: 37 + 9 → Abafundi: 46
 Utishala: 37 + 6 → Abafundi: 43
 Utishala: 37 + 3 → Abafundi: 40 njalo njalo...

Qaphela: Abafundi bangabala phezulu nasezantsi ngokukhawuleza ukuba bayadibanisa okanye bayathabatha isi-2, 3, okanye 4, koko kufuneka bakhuthazwe ukuba basebenzise indlela yokubala ngamashumi xa edibanisa kunye nokuthabatha 5, 6, 7, 8, kunye 9 esebenzisa ezentloko enombono womgca manani.

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa idayagram uqhagamshela ukudibanisa nokuthabatha.

Qaphela: Idayagram emnyama, engwevu namhlophe ikhona kwincwadi enento yonke.

<p>Utishala: Kusapho lwedayagram, iidayagram ezimbini ezincinci zidibene ziyalingana nale dayagram inkulu. Xa sijonga ubungakanani beedayagram ezinemibala engafaniyo ezincinci (mhlophe, ngwevu kunye mnyama) sibona ukuba ubude beedayagram ezi-2 ezincinci zidibene zilingana nobude bedayagram enkulu.</p> <p>Utishala: Eyona inkulu siyibiza (mnyama) dayagram 'Nkulu' (ncamathisela umbhalo 'Nkulu' kwindawo emnyama), ze sibize enye kwezi zimbini zincinci 'Ncinci' (ncamathisela imibhalo 'Ncinci' kwezi zincinci).</p> <p>Utishala: Ubude be 'Nkulu bulingana Ncinci dibanisa Ncinci'</p> <p>Bhala ubalo ebhodini.</p>	<p>Ncamathisela idayagram ngezantsi ebhodini ze uncamathisele amagama (Nkulu, Ncinci, Ncinci) ngezantsi kwedayagram.</p>   <p>Nkulu = Ncinci + Ncinci</p>
<p>Utishala: Ndinike ezinye izivakalisi zokudibanisa nokuthabatha zale dayagram?</p>	<p>Nkulu – Ncinci = Ncinci</p>

<p>Abafundi: $Nkulu - Ncinci = Ncinci$, njalo njalo.</p> <p>Bhala oko kuza nabafundi, ebuza abafundi bamkele okanye bangamkeli oko kuza nabafundi (kubekho izizathu).</p> <p>Utishala: Sithini ngo '$Ncinci - Nkulu = Ncinci$?' (bhala)</p> <p>Abafundi bayachaza ukuba isivakalisi siyinyani okanye asiyonyani. Buza abafundi banike izizathu.</p> <p>Zoba umgca kwezi zivakalisi abafundi baveneyo ukuba asiyonyani (okanye azichanekanga). Bhala 'asiyonyani' ecaleni kwazo.</p> <p>Yenza efana no '$Ncinci + Nkulu = Ncinci$'</p>	<p>$Ncinci + Ncinci = Nkulu$</p> <p>$Ncinci - Nkulu = Ncinci$?</p> <p>$Ncinci - Nkulu = Ncinci$ asiyonyani</p> <p>$Ncinci + Nkulu = Ncinci$ asiyonyani</p>
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Imisebenzi yomfundi ngamnye

Ukuqhagamshela ukudibanisa nokuthabatha Isifundo Esiqalayo 1: Umsebenzi womfundi ngamnye

Bhala amagama Nkulu, Ncinci kunye noNcinci ecaleni komzobo kwidayagram ngezantsi:

3	6
9	

Beka umkorekisho (✓) ecaleni kwezivakalisi zamani eziyinyani/ezichanekileyo, kunye no (x) ecaleni kwezivakalisi zamanani ezingeyonyani/ezingachanekanga (X):

$3 + 6 = 9$	$6 - 3 = 9$
$9 = 6 + 3$	$9 - 3 = 6$
$6 + 9 = 3$	$3 = 9 - 6$
$6 + 3 = 9$	$9 - 6 = 3$
$3 + 9 = 6$	$3 - 6 = 9$

Abafundi ngoku mabazame umsebenzi womfundi ngamnye onikiweyo omawenziwe kwisifundo esiqalayo 1.

Ividiyo encedisayo

Linking Addition & Subtraction 1



<https://youtu.be/nha592FZEAc>

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 2

Umzuzu om-1 ubalo ngeNtloko

Ukuthabatha okungxamileyo: inani elinedijithi e-1 kwinani elineedijithi ezi-2

Khetha inani elineedijithi ezi-2 ze ubuze abafundi ukuba bathabathe amanani awohlukeneyo anedijithi e-1kuwo.

Utishala: 71 – 1 → Abafundi: 70
 Utishala: 71 – 3 → Abafundi: 68
 Utishala: 71 – 5 → Abafundi: 66
 Utishala: 71 – 7 → Abafundi: 64 njalo njalo...

Utishala: 42 – 2 → Abafundi: 40
 Utishala: 42 – 4 → Abafundi: 38
 Utishala: 42 – 6 → Abafundi: 36
 Utishala: 42 – 9 → Abafundi: 33 njalo njalo...

Ulandelelwano lomsebenzi

Kwesi sifundo sibonisa ubudlelane bokudibanisa nokuthabatha phakathi kumanani azalanayo

<p>Utishala: Ungacinga ukuba amanani 4, 6 kunye 10 angaqhagamshela njani?</p> <p>Abafundi bangeza nobudlelane obufana 'ne kunye nontandathu wenza ishumi', okanye 'ukuba sithatha isine kwishumi sifumana isithandathu', okanye '4 + 6 = 10' okanye '10 – 4 = 6'.</p> <p>Bhala okuza nabafundi ngexesha, buza abafundi batsho ukuba ingaba iingcebiso ziyinyani/chanekile okanye asiyonyani/azichanekanga (kunezizathu). Cima okuthethiweyo okungachanekanga.</p> <p>Utishala: Amanani 4, 6 kunye 10 aqhagamshela xa sidibanisa siphinde sithabathe. Angacingelwa ukuba ngamanani azalanayo. Kwinani elizalanayo idayagram, amanani amabini amancinci xa edibene ayalingana ngobungakanani nenani elikhulu. Apha, ubude be 4 + 6 (amabini amancinci azalanayo)alingana nobude be-10 (Elona likhulu koluzalano).</p> <p>Zoba idayagram.</p> <p>Utishala: Amanye amanani amathathu aqhagamshela xa sidibanisa sithabathe isi-8, 3 kunye 5. La manani akwangamanani azalanayo.</p>	<p>Bhala 4, 6 kunye 10 ebhodini.</p> <p style="text-align: center;">4 6 10</p> <p>Ne kunye nontandathu zenza ishumi</p> <p>Shumi thabatha isithandathu zilingana nesine</p> <p>4 + 6 = 10 6 + 4 = 10 10 – 6 = 4 10 – 4 = 6</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">4</td> <td style="padding: 5px;">6</td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;">10</td> </tr> </table> <p>Bhala 8, 3 kunye 5 ebhodini.</p> <p style="text-align: center;">8 3 5</p>	4	6	10	
4	6				
10					

<p>Aqhagamshela njani la manani kwidayagram?</p> <p>Zoba idayagram engenanto ngokwale ndlela ibonisiweyo.</p> <p>Abafundi bacebisa uqhagamshelo phakathi kwesi-8, 3 kunye 5 kunye nalapho inani ngalinye maliye kwidayagram.</p> <p>Bhala okuza nabafundi njenga phambili. Bhala okwamkelekileyo kokunikwayo ebhodini kwiikhohlam ezimbini. Ungafuneka uncede abafundi ngezi-2 zokugqibela kwikhohlam nganye ngokusebenzisa iibhokisi ngolu hlobo:</p> <p>$8 = \square + \square$; $3 = \square - \square$; $5 = \square - \square$</p> <p>Utishala: Kuwo onke amanani azalanayo singenza isi-4 dibanisa kunye nesi-4 thabatha izivakalisi zamanani. Masibuyele umva kumzekelo wethu odlulileyo sibone ukuba asishiyanga nto na.</p> <p>Bhala izivakalisi zamanani isi-8, 3 kunye 5 ebesishiyelwe.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px; height: 20px;"></td> <td style="width: 50px; height: 20px;"></td> </tr> <tr> <td colspan="2" style="height: 20px;"></td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="width: 50%;">+ ubalo</th> <th style="width: 50%;">– ubalo</th> </tr> </thead> <tbody> <tr> <td>$5 + 3 = 8$</td> <td>$8 - 3 = 5$</td> </tr> <tr> <td>$3 + 5 = 8$</td> <td>$8 - 5 = 3$</td> </tr> <tr> <td>$8 = 5 + 3$</td> <td>$5 = 8 - 3$</td> </tr> <tr> <td>$8 = 3 + 5$</td> <td>$3 = 8 - 5$</td> </tr> </tbody> </table>					+ ubalo	– ubalo	$5 + 3 = 8$	$8 - 3 = 5$	$3 + 5 = 8$	$8 - 5 = 3$	$8 = 5 + 3$	$5 = 8 - 3$	$8 = 3 + 5$	$3 = 8 - 5$
+ ubalo	– ubalo														
$5 + 3 = 8$	$8 - 3 = 5$														
$3 + 5 = 8$	$8 - 5 = 3$														
$8 = 5 + 3$	$5 = 8 - 3$														
$8 = 3 + 5$	$3 = 8 - 5$														

Umsebenzi womfundi ngamnye

Abafundi kufuneka basebenze namaqabane bazobe idayagram yamanani azalanayo 7, 9 kunye 16. Emva koko mababhale 4 dibanisa kunye 4 thabatha ubalo lwamanani azalanayo

Jikeleza ujonge umsebenzi weperi kwaye uncedisa apho kufunekayo.

Ividiyo encedisayo

Linking Addition & Subtraction 2



<https://youtu.be/fKPfCfF0w1l>

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 3

Umzuzu om-1 ubalo ngeNtloko

- a. Dibanisa ngokukhawuleza: amanani anedijithi e-1 kunye namanani anedijithi ezi-2.
- b. Thabatha ngokukhawuleza: amanani anedijithi e-1 kumanani anedijithi ezi-2.

Ulandelelwano lomsebenzi

Kwesi sifundo siziqhelanisa nokuqhagamshela ukudibanisa nokuthabatha sisebenzisa idayagram.

<p>Utishala: Amanani 17, 5 kunye 22 ayaqhagamshela xa sidibanisa sithabathe. Ngamanani azalanayo. Zoba idayagram engenanto ngokwalendlela ibonisiweyo.</p> <p>Abafundi mabacebise ngokuqhagamshela phakathi 17, 5 kunye 22 nokuba inani ngalinye maliye phi kwidayagram.</p> <p>Bhala okuza nabafundi njengangaphambili kwiikholam ezibala ukudibanisa nokuthabatha. Cima okungachanekanga ebekuthethile. Kufuneka ubancedile abafundi ngezi-2 zokugqibela kwikholam nganye ngokusebenzisa iibhokisi kanje: $22 = \square + \square$; $5 = \square - \square$; $17 = \square - \square$</p> <p>Utishala: Ngawo onke amanani azalananyo singenza izivakalisi zamanani 4 sidibanise kwakunye 4 sithabathe. Masibone ukuba sishiyelele ezinye.</p> <p>Bhala izivakalisi zamanani ze- 17, 5 kunye 22 ebezishiyelelwe.</p>	<p>Bhala 17, 5 kunye 22 ebhodini.</p> <p style="text-align: center;">17 5 22</p> <div style="border: 1px solid black; width: 100%; height: 40px; margin: 10px 0;"></div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="padding: 5px;">+ bala</th> <th style="padding: 5px;">– bala</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">$5 + 17 = 22$</td> <td style="padding: 5px;">$22 - 17 = 5$</td> </tr> <tr> <td style="padding: 5px;">$17 + 5 = 22$</td> <td style="padding: 5px;">$22 - 5 = 17$</td> </tr> <tr> <td style="padding: 5px;">$22 = 5 + 17$</td> <td style="padding: 5px;">$5 = 22 - 17$</td> </tr> <tr> <td style="padding: 5px;">$22 = 17 + 5$</td> <td style="padding: 5px;">$17 = 22 - 5$</td> </tr> </tbody> </table>	+ bala	– bala	$5 + 17 = 22$	$22 - 17 = 5$	$17 + 5 = 22$	$22 - 5 = 17$	$22 = 5 + 17$	$5 = 22 - 17$	$22 = 17 + 5$	$17 = 22 - 5$
+ bala	– bala										
$5 + 17 = 22$	$22 - 17 = 5$										
$17 + 5 = 22$	$22 - 5 = 17$										
$22 = 5 + 17$	$5 = 22 - 17$										
$22 = 17 + 5$	$17 = 22 - 5$										

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabasebenzise umsebenzi womfundi ngamnye onikiweyo kwiSifundo Esiqalayo 3.

Abafundi mabafake amanani azalanayo kwidayagram echanekileyo. Mabatshatise ubungakanani bamanani amabini amancinci ngobungakanani bedayagram encinci.

Ividiyo encedisayo

Linking Addition & Subtraction 3



<https://youtu.be/r02iTWJMfP0>

Iqama:

Ukuqhagamshela ukuDibanisa nokuThabatha kwiSifundo Esiqalayo 3:

Umsebenzi woMfundi ngamnye

Bhala la manani azalanayo alandelayo kwidayagram echanekileyo apha ngezantsi. Ze ubhale izivakalisi zamanani ezidibanisayo ezine kunye nezithabathayo ezine kwinani elizalanayo ngalinye.

$$5 + 5 = 10 \quad 3 + 4 = 7 \quad 11 + 1 = 12 \quad 9 = 2 + 7$$

Qala ngesi $5 + 5 = 10$. Yeyiphi idayagram efanayo $5 + 5$?

Qaphela $5 + 5 = 10$ unesibini esidibanisayo kunye nesibini esithabathayo sezivakalisi zamanani kuphela.

<table border="1" style="width: 100%; height: 60px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td colspan="2"></td> </tr> </table>					<table border="1" style="width: 100%; height: 60px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td colspan="2"></td> </tr> </table>					<table border="1" style="width: 100%; height: 60px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td colspan="2"></td> </tr> </table>					<table border="1" style="width: 100%; height: 60px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td colspan="2"></td> </tr> </table>				
<p>Dibanisa:</p> <hr/> <hr/> <hr/> <hr/>	<p>Dibanisa:</p> <hr/> <hr/> <hr/> <hr/>	<p>Dibanisa:</p> <hr/> <hr/> <hr/> <hr/>	<p>Dibanisa:</p> <hr/> <hr/> <hr/> <hr/>																
<p>Thabatha:</p> <hr/> <hr/> <hr/> <hr/>	<p>Thabatha:</p> <hr/> <hr/> <hr/> <hr/>	<p>Thabatha:</p> <hr/> <hr/> <hr/> <hr/>	<p>Thabatha:</p> <hr/> <hr/> <hr/> <hr/>																

Ividiyo encedisayo

Linking Addition & Subtraction 4



<https://youtu.be/KPsfH209EEM>

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 4

Umzuzu om-1 ubalo ngeNtloko

Zoba idayagram ebonisa noluphi udibaniso lwamanani ama-3 kuluhlu lwesi-1-20. Imizekelo emibini inikiwe ngezantsi. Zoba iidayagram zibonakale ngokulinganayo namanani.

7	3
10	

4	9
13	

Ngoku buza abafundi bakunike izivakalisi zamanani ezahlukeneyo ezidibanisayo nezithabathayo ezisebenza kule dayagram. Njengokuba abafundi becebisa ngezivakalisi zamanani ezinokwenzeka, khomba kumanani kwidayagram

Qinisekisa ukuba abafundi bacebisa ngazo zombini izivakalisi zamanani ezidibanisayo nezithabathayo:

umzekelo. $7 + 3 = 10$ $3 + 7 = 10$ $10 - 3 = 7$ $10 - 7 = 3$

Khuthaza abafundi ukuba nabo bacebise izivakalisi zamanani apho 'impendulo' iza kuqala, umzekelo. $10 = 7 + 3$ $10 = 3 + 7$ $3 = 10 - 7$ $7 = 10 - 3$

Qaphela: Kusoloko kusenzeka 8 izivakalisi zamanani njengezi zisi-8 ngentla ezisebenzayo kwidayagram nganye. Abafundi akufunekanga bacebise zonke zosi-8 ezi zivakalisi zamanani zinokwenzeka, kodwa kulungile ukubakhuthaza beze neendidi ezahlukeneyo zazo.

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa ukuqhagamshela phakathi kokudibanisa nokuthabatha ukubhala izibalo ezahlukeneyo ngeseti enye yamanani.

<p>Bamba imibhalo eno 'Nkulu' 'Ncinci' kunye 'Ncinci'. Utishala: Sifunde ukuba kunedayagram eNkulu e-1 kunye nezi-2 eziNcinci iidayagram kula manani azalanayo. Siyibiza le dayagram Nkulu, Ncinci kunye noNcinci (bambela imibhalo phezulu). Ngubani onokundiceda ndifakele imibhalo kule dayagram?</p> <p>Biza umfundi azokuncamathisela amagama ecaleni kweedayagram. Utishala: Ndifuna sigcwalise amanani azalanayo 15, 5 kunye 10 kule dayagram. Bhala 15, 5 kunye 10 ebhodini. Khumbuza abafundi ukuba inani elikhulu liyakungena kwidayagram ebhalwe Nkulu ze amanani amabini amancinci kwebhalwe Ncinci. Fakela amanani uncediswa ngabafundi. Ukuba babhidanisa i-10 nesi-5, khumbuza abafundi ukuba ubungakanani</p>	<p>Zoba idayagram engezantsi ebhodini.</p> <table border="1" style="margin: 10px auto;"> <tr> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td colspan="2" style="height: 30px;"></td> </tr> </table> <table border="1" style="margin: 10px auto;"> <tr> <td style="width: 50px; height: 30px; text-align: center;">Ncinci</td> <td style="width: 50px; height: 30px; text-align: center;">Ncinci</td> </tr> <tr> <td colspan="2" style="height: 30px; text-align: center;">Nkulu</td> </tr> </table> <table border="1" style="margin: 10px auto; text-align: center;"> <tr> <td style="width: 50px;">15</td> <td style="width: 50px;">5</td> <td style="width: 50px;">10</td> </tr> <tr> <td style="width: 50px; height: 30px;">10</td> <td style="width: 50px; height: 30px;">5</td> <td></td> </tr> <tr> <td colspan="3" style="height: 30px;">15</td> </tr> </table>					Ncinci	Ncinci	Nkulu		15	5	10	10	5		15		
Ncinci	Ncinci																	
Nkulu																		
15	5	10																
10	5																	
15																		

<p>bedayagram mabuhambelane nobungakanani benani. Tishala: Ndinike izivakalisi zalamanani azalanayo 15, 5 kunye 10.</p> <p><i>Qaphela: Awunyanzelekanga ukuba uzifumane zonke zosi-8 izivakalisi zalamanani azalanayo. Into oyifunayo kukubona ukuba abafundi bayayiqonda na ukuzalana phakathi kwamanani. Ukuba kukho 'ezingeyonyani' ezinikiweyo khumbuza abafundi ngezivakalisi eziyinyani nezingeyonyani ebebezifundile kwixa elidlulileyo, umzekelo. Ncinci—Nkulu = Ncinci asiyonyani</i></p>					
<p>Ingxaki: 25 – 22 Tishala: Ukuba sizama ukwenza olu balo ngama-22 sibuya umva bala usuka kuma-25 lonto iyakuthatha ixesha elide. Kodwa singazoba idayagram yala manani azalanayo ukufumana indlela elula yokufumana inani elishiyiweyo. 25 Mkhulu ze ama-22 yena ngomnye wamaNcinci.</p> <p>Zoba idayagram ze ufakele ama-22 kunye nama-25. Tishala: Le dayagram incinci yona kuba ama-22 kunye nama-25 (khomba kwidayagram) asondelelene omabini. Ke kuyakuba lula ukubuza '22 dibanisa ntoni zilingana 25?' (khomba kwidayagram njengokuba ukuthetha oku; bhala isivakalisi) okanye '25 thabatha ntoni zilingana 22?' (khomba kwidayagram; bhala isivakalisi). Ndingayifumana impendulo ngokukhawuleza ngokubala ukusuka kuma-22, okanye ngokubala ubuya umva usuka kuma-25.</p> <p>Bala inani elishiyiweyo nabafundi. Bhala '3' kwidayagram encinci kwibhokisi engenanto kwisivakalisi samanani. Tishala: Xa sinenani elishiyiweyo singabona zonke izivakalisi ezidibanisayo nezithabathayo ezinokwenziwa ngalamanani azalanayo. Khumbuza abafundi ngezinye izivakalisi ezinokwenziwa utsho ukhomba kwidayagram. Tishala: (khomba kwingxaki yokuqala) Senze ubalo ka-3 ukufumana impendulo endaweni yokubala ama-22. Singajonga kwidayagram ukufumana indlela elula yokubala.</p>	<p style="text-align: right;">25 – 22 = <input type="text"/></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 60px; text-align: center;">22</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black; text-align: center;">25</td> </tr> </table> <p>Bhala izibalo: 22 + <input type="text"/> = 25 25 – <input type="text"/> = 22</p> <p>Shiya idayagram nezivakalisi ebhodini.</p>		22	25	
	22				
25					

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazame le mizekelo ilandelayo ngokuqala bakope idayagram ze bafakele amanani anikiweyo. Abafundi mababhale ubalo olukhawulezayo abalusebenzisileyo ukufumana impendulo.

$$21 - 17 = \square$$

$$28 - 25 = \square$$

Abafundi mababhale amagama Nkulu kunye noNcinci kwimibuzo ukucacisa iingcinga zabo. umzekelo. “ama-21 – 17, ndilutshintshile ubalo ndabala ukusukela kwi-17 ukuya kuma-21 ngokusebenza i-17 + \square = 21” okanye “ndingalutshintsha ubalo ama-21 – 17 ukubala ndisuka kuma-21 ukuya kwi-17 ngokusebenza ama-21 – \square = 17.”

Umsebenzi wasekhaya: Iphepha lokusebenzela 1

Ekupheleni kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 1.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko

Igama:

Ukuqhagamshela ukuDibanisa nokuThabatha: Iphepha lokusebenzela I

<p>1. $67 + \square = 72$</p>	<p>Fakela i-17, 3 kunye 20 kwisivakalisi samanani esingezantsi (II - I4).</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">17</td> <td style="padding: 5px;">3</td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;">20</td> </tr> </table>	17	3	20	
17	3				
20					
<p>2. $54 - 6 = \square$</p>	<p>11. $\square - 3 = \square$</p>				
<p>3. $78 + 7 = \square$</p>	<p>12. $\square + 3 = \square$</p>				
<p>4. $26 + \square = 34$</p>	<p>13. $\square - \square = 3$</p>				
<p>5. $99 + \square = 102$</p>	<p>14. $3 + \square = \square$</p>				
<p>6. Fakela la manani mathathu kwiibhokisi: $13 - 8 = 5$</p> <table border="1" style="margin-left: auto; margin-right: auto; width: 100px; height: 80px;"> <tr> <td style="width: 30px; height: 30px; text-align: center;">□</td> <td style="width: 30px; height: 30px; text-align: center;">□</td> </tr> <tr> <td colspan="2" style="text-align: center; height: 20px;">□</td> </tr> </table>	□	□	□		<p>15. $198 + \square = 202$</p> <p>16. $31 - \square = 28$</p>
□	□				
□					
<p>7. $206 - 8 = \square$</p>	<p>17. $46 + 8 = \square$</p>				
<p>8. $48 + \square = 54$</p>	<p>18. $55 + \square = 63$</p>				
<p>9. $81 - \square = 78$</p>	<p>19. $64 - \square = 59$</p>				
<p>10. $39 + \square = 44$</p>	<p>20. $65 + \square = 72$</p>				

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokwenza. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 5

Umzuzu om-1 ubalo ngeNtloko

Ukusebenza ngeedayagram

Ulandelelwano lomsebenzi

Kwesi sifundo sifumana ubalo olulula olunxulumene nokubala ngokudibanisa apho inani elinye kumanani adityanisiweyo lingekhoyo.

<p>Ingxaki: $6 + \square = 25$ $\square + 3 = 28$ Tishala: Kwisifundo sokugqibela sibone ukuba singatshintsha ubalo senze siqhagamshela ukudibanisa okulula okanye ubalo lokuthabatha ukufumana inani elishiyiweyo. Jonga olu balo ebhodini.</p> <p>Zoba idayagram engenanto ebonisiweyo ze usebenze nabafundi ukwakha idayagram zobalo. Tishala: Ndincede ndigqibe idayagram zolu balo. Buza abafundi bakuyalele ukuba uzobe phi imigca kule ingentla idayagram, nokuba ubhale phi inani ngalinye. Tishala: Kulula ukuphendula 25 thabatha 6 (khomba kumanani kwidayagram) okanye 28 thabatha 3 (khomba kumanani kwidayagram).</p> <p>Bala ezi zibalo nabafundi, usebenzisa ukuvala ngamashumi apho kufunekayo (umzekelo. $25 - 5$ ufumana 20 ze $20 - 1$ ufumana 19, ke $25 - 6 = 19$). Bhala iimpendulo kwidayagram engenanto nakwiibhokisi ezingenanto ngokwale ndlela ibonisiweyo. Emva koko fakela kwisivakalisi senani sokuqala. Tishala: Sifumana kulula ukusombulula ubalo ngokudibanisa ngokulutshintsha lube lubalo ngokuthabatha.</p>	<p>Bhala ubalo kunye nedayagram engenanto ngale ndlela ibonisiweyo: $6 + \square = 25$ $\square + 3 = 28$</p> <div style="display: flex; justify-content: space-around;"> <table border="1" style="width: 100px; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table> <table border="1" style="width: 100px; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <table border="1" style="width: 100px; text-align: center;"> <tr><td style="width: 20px;">6</td><td style="width: 80px;"> </td></tr> <tr><td colspan="2" style="border-top: 1px solid black;">25</td></tr> </table> <table border="1" style="width: 100px; text-align: center;"> <tr><td style="width: 80px;"> </td><td style="width: 20px;">3</td></tr> <tr><td colspan="2" style="border-top: 1px solid black;">28</td></tr> </table> </div> <p style="margin-top: 10px;">$25 - 6 = \square$ $28 - 3 = \square$</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <table border="1" style="width: 100px; text-align: center;"> <tr><td style="width: 20px;">6</td><td style="width: 80px;">19</td></tr> <tr><td colspan="2" style="border-top: 1px solid black;">25</td></tr> </table> <table border="1" style="width: 100px; text-align: center;"> <tr><td style="width: 40px;">25</td><td style="width: 60px;">3</td></tr> <tr><td colspan="2" style="border-top: 1px solid black;">28</td></tr> </table> </div> <p style="margin-top: 10px;">$25 - 6 = \boxed{19}$ $28 - 3 = \boxed{25}$</p> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;"> \downarrow $6 + \boxed{19} = 25$ </div> <div style="text-align: center;"> \downarrow $\boxed{25} + 3 = 28$ </div> </div>					6		25			3	28		6	19	25		25	3	28	
6																					
25																					
	3																				
28																					
6	19																				
25																					
25	3																				
28																					
<p>Tishala: Sibonile ukuba sinodibaniso okanye ukuthabatha okunzima singabona ukuba ikhona indlela yokulutshintsha lube lula. Kodwa asikwazi nje ukuwatshintsha abe naluluphi ubalo.</p> <p>Tishala: Ndingatshintsha $6 + \square = 25$ lube $\square - 6 = 25$?</p> <p>Bhala ubalo ebhodini. Xeleta abafundi ukuba izivakalisi zamanani maziqhagamshelane no Nkulu, Ncinci, Ncinci icebo kwidayagram. Ncedisa abafundi bacinge ukuba leliphi kulamanani kwesi sivakalisi elinokubizwa ngo Nkulu, Ncinci</p>	<p>Ndingatshintsha...? $6 + \square = 25$ lube $\square - 6 = 25$</p> <p style="text-align: center;">$6 + \square = 25$ yinyani</p> <div style="display: flex; justify-content: center; align-items: center; margin-top: 10px;"> <div style="text-align: center; margin-right: 20px;"> \uparrow Ncinci </div> <div style="text-align: center; margin-right: 20px;"> \uparrow Ncinci </div> <div style="text-align: center;"> \uparrow Nkulu </div> </div> <p style="text-align: center; margin-top: 10px;">$\square - 6 = 25$ asiyonyani</p> <div style="display: flex; justify-content: center; align-items: center; margin-top: 10px;"> <div style="text-align: center; margin-right: 20px;"> \uparrow Ncinci </div> <div style="text-align: center; margin-right: 20px;"> \uparrow Ncinci </div> <div style="text-align: center;"> \uparrow Nkulu </div> </div>																				

kunye Ncinci ze uwabhale. Thetha ngokuba 'Ncinci + Ncinci = Nkulu' ilungile okanye hayi. Buza ukuba yinyani okanye asiyonyani.
 Nceda abafundi babhale $\square - 6 = 25$ ngendlela enye ze bagqibe ukuba 'Ncinci - Ncinci = Nkulu' yinyani okanye asiyonyani.
 Abafundi mabafunde ukwazi ukuba $\square - 6 = 25$ **asiyonyani** kula manani azalanayo. Yongeza uyinyani kunye asiyonyani kwizivakalisi zamanani.

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazame le mizekelo ilandelayo. Kuwo ngamnye mabazobe idayagram ze baphinde babhale isivakalisi samanani njengobalo olulula ukufumana inani elishiyiweyo. Ukuba abafundi bayasokola, bakhuthaze babhale kwidayagram Nkulu, Ncinci no Ncinci.

$$7 + \square = 32 \quad \square + 3 = 104$$

Ividiyo encedisayo

Linking Addition & Subtraction 5



<https://youtu.be/bkmaf0ArzuY>

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 6

Umzuzu om-1 ubalo ngeNtloko

Ukusebenza ngeedayagram

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa ubudlelane phakathi kokudibanisa nokuthabatha ukwenza ubalo lokuthabatha lube lula.

<p>lingxaki: $\square - 30 = 9$ $30 - \square = 9$</p> <p>Tishala: Kwesi sifundo sibone ukuba singalutshintsha ubalo lube lubalo lokudibanisa okanye ukuthabatha olwahlukileyo ukufumana inani elishiyiweyo. Jonga olu balo lusebhodini.</p> <p>Zoba iidayagram ezingenanto ezibonisiweyo ze usebenze nabafundi ukwakha iidayagram zobalo.</p> <p>Tishala: Ndincedeni ndigqibe iidayagram zolu balo. Ingaba iidayagram ziyakufana okanye ziyakwahluka?</p> <p>Abafundi mababonakalise ukuba zahlukile.</p> <p>Kumzekelo wokuqala ($\square - 30 = 9$), elingaziwayo liKhulu kunye 30 ne 9 onke Mancinci.</p> <p>Kumzekelo wesibini ($30 - \square = 9$), 30 Mkhulu ze elingaziwayo kunye 9 Mancinci.</p> <p>Buza abafundi ukuba bakuyalele ukuba uzobe phi imigca kule dayagram ingentla, kwakhona alibhale phi inani ngalinye. Ukuba abafundi bayasokola, bakhuthaze babhale idayagram njengo Nkulu, Ncinci no Ncinci.</p> <p>Buza abafundi ukuba baqaphele ukuba yintoni efanayo kwaye yintoni engafaniyo kwezidayagram zimbini.</p> <p>Bhala olu balo lulandelayo phantsi kwedayagram echanekileyo ngale ndlela ibonisiweyo:</p> <p>$30 + 9 = \square$ $30 - \square = 9$</p>	<p>Bhala ubalo needayagram ezingenanto ngale ndlela ibonisiweyo:</p> <p>$\square - 30 = 9$ $30 - \square = 9$</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 50%; height: 20px;"></td> <td style="border: 1px solid black; width: 50%; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; width: 50%; height: 20px;"></td> <td style="border: 1px solid black; width: 50%; height: 20px;"></td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 50%; text-align: center;">30 9</td> <td style="border: 1px solid black; width: 50%; text-align: center;"> 9</td> </tr> <tr> <td style="border: 1px solid black; width: 50%;"></td> <td style="border: 1px solid black; width: 50%; text-align: center;">30</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 50%; text-align: center;">30 9</td> <td style="border: 1px solid black; width: 50%; text-align: center;"> 9</td> </tr> <tr> <td style="border: 1px solid black; width: 50%;"></td> <td style="border: 1px solid black; width: 50%; text-align: center;">30</td> </tr> </table> <p style="text-align: center;">$30 + 9 = \square$ $30 - \square = 9$</p>					30 9	9		30	30 9	9		30
30 9	9												
	30												
30 9	9												
	30												

<p>Sebenza nabafundi ukubala iziphumo zama $30 + 9$ (iqhagamshelwe kwidayagram yokuqala) kwaye $30 - 9$ (iqhagamshelwe kwidayagram yesibini).</p> <p>Sebenza nabafundi ukufaka inani elichanekileyo kubalo nakwidayagram ngale ndlela ibonisiweyo.</p> <p>Fakela izivakalisi zamanani zoqobo. Bonisa abafundi indlela yokubala ama $30 + 9$ asincedile ukusombulula $\square - 30 = 9$ nokuba indlela esibale ngayo ama $30 - 9$ asincedile ukusombulula $30 - \square = 9$.</p>	<table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 5px;">30</td> <td style="padding: 5px;">9</td> <td style="padding: 5px;">21</td> <td style="padding: 5px;">9</td> </tr> <tr> <td colspan="2" style="padding: 5px;">39</td> <td colspan="2" style="padding: 5px;">30</td> </tr> </table> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> $30 + 9 = \boxed{39}$ \downarrow $\boxed{39} - 30 = 9$ </div> <div style="text-align: center;"> $30 - 9 = \boxed{21}$ \downarrow $30 - \boxed{21} = 9$ </div> </div>	30	9	21	9	39		30	
30	9	21	9						
39		30							

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazame lemizekelo ilandelayo ngokuzoba idayagram ze baphinde babhale isivakalisi senani njengendlela elula yokubala ukufumana inani elishiyiweyo:

$$25 - \square = 9 \quad \square - 25 = 9$$

Abafundi mabachaze iingcinga zabo, umzekelo. “ama $25 - \square = 9$, ndingalutshintsha ubalo lube ngama $25 - 9$. Xa ndithabatha 9 kuma 25, ndifumana 16 kuba $25 - 9 = 16$ ngama 20 kunye nama- $20 - 4 = 16$. Oku kuthetha ukuba $25 - \boxed{16} = 9$.”

Ividiyo encedisayo

Linking Addition & Subtraction 6



<https://youtu.be/OnF8U7aBPOc>

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 7

Umzuzu om-1 ubalo ngeNtloko

- a. Ukudibanisa okukhawulezayo: amanani anedijithi e-1 kunye namanani anedijithi ezi-2 (sebenzise amanye amanani amakhulu azakunika impendulo ezingaphezu kwe 100 nama 200, umzekelo. $99 + 2$; $99 + 4$; $198 + 4$; $199 + 3$)
- b. Ukuthabatha okukhawulezayo: amanani anedijithi e-1 kumanani anedijithi ezi-2 (sebenzisa amanye amanani angaphezu kwe 100 nama 200, $101 - 2$; $103 - 4$; $203 - 4$; $201 - 3$)

Ulandelelwano lomsebenzi

Kwesi sifundo siqhagamshela ukudibanisa nokuthabatha ngobalo olulula ukusombulula ukudibanisa nokuthabatha ngamanani amakhulu.

<p>Tishala: Masisebenzise oko sikufundileyo ukusombulula olunye ubalo ngamanani amakhulu. Ungabufumana ubudlelane phakathi kwamanani 105, 10 kunye 95? Zoba idayagram engenanto ngokwale ndlela ibonisiweyo.</p> <p>Tishala: Amanani 105, 10 kunye 95 ayaqhagamshela xa sidibanisa siphinde sithabathe. Angafundiswa ngokwamanani azalanayo.</p> <p>Abafundi bacebisa uqhagamshela phakathi 105, 10 kunye 95 ze apho inani ngalinye maliye kwidayagram.</p> <p>Hoya okuza nabafundi kwangaphambili. Bhala abaza nako okuchanekileyo ebhodini kwiikhohlam ezimbini. Uzakufuna ukuba nceda abafundi ngezi zokugqibela zi-2 kwikhohlam nganye ngokusebenzisa iibhokisi ezinje:</p> <p>$105 = \square + \square$; $95 = \square - \square$; $10 = \square - \square$</p> <p>Tishala: Ngenani elizalanayo ngalinye singenza izivakalisi zamanani 4 ezidibanisayo nezi 4 ezithabathayo. Masibone ukuba ikhona esiyishiyeleleyo na.</p> <p>Bhala izivakalisi zamanani ze-105, 10 nama 95 ebezishiyelelweyo.</p> <p>Zoba idayagram yengxaki nganye. Bhala u 'Nkulu', 'Ncinci' no 'Ncinci'. Fumana idayagram engekhozo ze ubhale impendulo encwadini.</p> <p style="text-align: center;"> $101 - 98 = \square$ $\square - 99 = 4$ $\square + 2 = 201$ </p>	<p>Bhala 105, 10 kunye 95 ebhodini.</p> <p style="text-align: center;">105 10 95</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="width: 80%; height: 30px;"></td> <td style="width: 20%;"></td> </tr> <tr> <td colspan="2" style="height: 30px;"></td> </tr> </table> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="width: 80%; text-align: center;">95</td> <td style="width: 20%; text-align: center;">10</td> </tr> <tr> <td colspan="2" style="text-align: center; height: 30px;">105</td> </tr> </table> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">+ ubalo</th> <th style="width: 50%;">- ubalo</th> </tr> </thead> <tbody> <tr> <td>$10 + 95 = 105$</td> <td>$105 - 10 = 95$</td> </tr> <tr> <td>$95 + 10 = 105$</td> <td>$105 - 95 = 10$</td> </tr> <tr> <td>$105 = 95 + 10$</td> <td>$95 = 105 - 10$</td> </tr> <tr> <td>$105 = 10 + 95$</td> <td>$10 = 105 - 95$</td> </tr> </tbody> </table>					95	10	105		+ ubalo	- ubalo	$10 + 95 = 105$	$105 - 10 = 95$	$95 + 10 = 105$	$105 - 95 = 10$	$105 = 95 + 10$	$95 = 105 - 10$	$105 = 10 + 95$	$10 = 105 - 95$
95	10																		
105																			
+ ubalo	- ubalo																		
$10 + 95 = 105$	$105 - 10 = 95$																		
$95 + 10 = 105$	$105 - 95 = 10$																		
$105 = 95 + 10$	$95 = 105 - 10$																		
$105 = 10 + 95$	$10 = 105 - 95$																		

Imisebenzi yomfundi ngamnye

Abafundi ngoku mabazame le mizekelo ilandelayo bathathe isigqibo sokuba leliphi inani elikhulu kwaye ngaqaphi amaNcinci, kuzotywe idayagram ze kusonjululwe inani elingekhoyo.

$$115 - \square = 90 \quad \square + 3 = 210$$

Abafundi mabacacise iingcinga zabo.

Umsebenzi wasekhaya: Iphepha lokusebenzela 2

Ekupheleni kwesifundo sanamhlanje nika abafundi iphepha lokusebenzela 2.

Akufunekanga ukuba ubajongele ixesha abafundi xa besenza kweli phepha lokusebenzela. Injongo kukunika abafundi umsebenzi obhalwayo wokuziqhelanisa kumsebenzi ebebewenzile kwezentloko.

Ividiyo encedisayo

Linking Addition & Subtraction 7



<https://youtu.be/vlFAjz8cKMQ>

Igama:

Ukuqhagamshela ukuDibanisa nokuThabatha: Iphepha lokusebenzela 2

1. $72 - 67 = \square$	4. $94 - 88 = \square$				
2. $4 + \square = 303$	5. $302 - 298 = \square$				
3. $\square - 63 = 6$	6. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; height: 30px; vertical-align: middle;">\square</td> <td style="text-align: right; vertical-align: middle;">98</td> </tr> <tr> <td colspan="2" style="text-align: center; padding-top: 10px;">103</td> </tr> </table>	\square	98	103	
\square	98				
103					
<p>$61 + 27 = 88$ $34 + 27 = 61$</p>					
7. $61 - 27 = \square$					
<p>$36 + 25 = 61$ $61 + 36 = 97$</p>					
8. $\square + 36 = 61$					
<p>Sebenzisa amanani amathathu angezantsi kwizibalo ezimbini ezahlukeneyo:</p> <p>$78 + 52 = 130$</p>					
9. $\square - \square = \square$					
10. $\square - \square = \square$					

Amanqaku katishala

Apha ungazenzela amanqaku ngesifundo kwakunye nokuba ngabaphi abafundi abasafuna uncedo kule ndlela yokwenza. Ungazenzela kwakhona amanqaku naweyiphi into ofuna ukuyilungisa kwisifundo sokuqala esilandelayo.

UKUQHAGAMSHELA UKUDIBANISA NOKUTHABATHA: ISIFUNDO ESIQALAYO 8**Umzuzu om-1 ubalo ngeNtloko**

- a. Ukudibanisa okukhawulezayo: amanani anedijithi e-1 namanani aneedijithi ezi-2
 b. Ukuthabatha okukhawulezayo: amanani anedijithi e-1 kumanani aneedijithi ezi-2

Ulandelelwano lomsebenzi

Kwesi sifundo sisebenzisa uqhagamshelwano phakathi kokudibanisa nokuthabatha ukusombulula iingxaki ngaphandle kwedayagram.

<p>Bhala olu balo luboniswe ebhodini. Shiya isithuba ngezantsi kubalo ngalunye uzakubhala ukudibanisa okusondeleyo okanye ubalo ngokuthabatha.</p> <p>Abafundi mabazame ukuba nomfanekiso ngqondweni wedayagram kubalo ngalunye. Ukuba bayasokola ungazoba idayagram ngezantsi kobalo.</p> <p>Imizekelo inikiwe ngezantsi yokuba ungazibala njani ezintathu zokuqala.</p>	$\square + 3 = 28$ $\square - 37 = 6$ $202 - 198 = \square$ $2 + \square = 51$ $22 - \square = 3$
<p>Tishala: Lo msebenzi ungafundeka ngoku hlobo: Udibanisa bani kwisi-3 kulingane nama-28? Ungalutshintsha njani ubalo ulwenze lube lula ukufumana inani elishiyiweyo?</p> <p>Abafundi: $28 - 3$</p> <p>Bhala olu balo ngaphantsi kweyoqobo.</p> <p>Tishala: Ngubani impendulo?</p> <p>Abafundi: 25</p> <p>Abafundi bangabala ngezantsi ukuba abayazi (27, 26, 25, ke; impendulo ngama 25).</p>	$\square + 3 = 28$ $28 - 3 = \square$
<p>Tishala: Lo msebenzi ungafundeka ngolu hlobo: Ngubani lo uthabatha kuye ama-37 ulingana nesi-6? Ungalutshintsha njani ubalo ulwenze lube lula ukufumana inani elishiyiweyo?</p> <p>Abafundi: $6 + 37$ (okanye $37 + 6$)</p> <p>Bhala olu balo ngaphantsi kweyoqobo.</p> <p>Tishala: Ngubani impendulo?</p> <p>Abafundi: 43</p> <p>Abafundi bangabala phezulu ukusuka kuma-37 (38, 39, 40, 41, 42, 43, ke impendulo ngama 43). Abanye bangavala ngamashumi ($37 + 3 = 40$ nama $40 + 3 = 43$).</p>	$\square - 37 = 6$ $6 + 37 = \square$ or $37 + 6 = \square$

<p>Tishala: Lo msebenzi ufuna usombulule ama 202 thabatha 198. Ungalutshintsha njani olu balo ukulwenza lula ukufumana impendulo?</p> <p>Abafundi: $198 + \square = 202$</p> <p>Bhala olu balo ngaphantsi kweyoqobo.</p> <p>Tishala: Ngubani impendulo?</p> <p>Abafundi: 4</p> <p>Abafundi bangabala ukusuka kwi 198 (199, 200, 201, 202 ke; impendulo sis 4). Abanye bangabala ngamaShumi ($198 + 2 = 200$; $200 + 2 = 202$, ke impendulo sisi 4).</p>	<p>$202 - 198 = \square$</p> <p>$198 + \square = 202$</p>
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Imisebenzi yomfundi ngamnye

Abafundi ngoku mabasebenzise indlela yokwenza utshintsho kubalo ngokudibanisa nangokuthabatha, nobalo ngokuthabatha nangokudibanisa, xa lonke olu tshintsho lusenza lula ukufumana inani elishiyiweyo.

$$4 + \square = 105$$

$$\square + 5 = 69$$

$$\square - 29 = 2$$

$$41 - 36 = \square$$

Ividiyo encedisayo

Linking Addition & Subtraction 8



<https://youtu.be/nYoOex4bibl>

Igama:

Ukuqhagamshela ukuDibanisa nokuThabatha: Emva kovavanyo

ICANDELO I

Imizuzu 2 kweli phepha

<p>1. $76 + \square = 82$</p>	<p>Fakela i-16, 4 nama 20 kwizivakalisi zamanani ezingezantsi (11-14).</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">16</td> <td style="padding: 5px;">4</td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;">20</td> </tr> </table>	16	4	20			
16	4						
20							
<p>2. $42 - 4 = \square$</p>	<p>11. $\square - 4 = \square$</p>						
<p>3. $86 + 5 = \square$</p>	<p>12. $\square + 4 = \square$</p>						
<p>4. $17 + \square = 23$</p>	<p>13. $\square - \square = 4$</p>						
<p>5. $199 + \square = 201$</p>	<p>14. $4 + \square = \square$</p>						
<p>Fakela la manani mathathu kwiibhokisi: $11 - 9 = 2$.</p> <table border="1" style="width: 100%; height: 100px;"> <tr> <td style="width: 20%; height: 40px;"><div style="border: 1px solid black; width: 60px; height: 30px; margin: 5px;"></div></td> <td style="width: 60%;"></td> <td style="width: 20%; height: 40px;"><div style="border: 1px solid black; width: 60px; height: 30px; margin: 5px;"></div></td> </tr> <tr> <td colspan="2" style="height: 60px;"><div style="border: 1px solid black; width: 80%; height: 40px; margin: 5px auto;"></div></td> <td></td> </tr> </table>	<div style="border: 1px solid black; width: 60px; height: 30px; margin: 5px;"></div>		<div style="border: 1px solid black; width: 60px; height: 30px; margin: 5px;"></div>	<div style="border: 1px solid black; width: 80%; height: 40px; margin: 5px auto;"></div>			<p>15. $99 + \square = 102$</p> <p>16. $21 - \square = 19$</p> <p>17. $37 + 6 = \square$</p>
<div style="border: 1px solid black; width: 60px; height: 30px; margin: 5px;"></div>		<div style="border: 1px solid black; width: 60px; height: 30px; margin: 5px;"></div>					
<div style="border: 1px solid black; width: 80%; height: 40px; margin: 5px auto;"></div>							
<p>8. $302 - 5 = \square$</p>	<p>18. $27 + \square = 35$</p>						
<p>9. $29 + \square = 34$</p>	<p>19. $34 - \square = 29$</p>						
<p>10. $91 - \square = 89$</p>	<p>20. $75 + \square = 82$</p>						
<p>Itotali 20</p>							

Ukuqhagamshela ukuDibanisa nokuThabatha: Emva kovavanyo					
ICANDELO 2	Imizuzu 3 kweli phepha				
1.	$73 - 68 = \square$				
2.	$6 + \square = 303$				
3.	$\square - 82 = 5$				
4.	$82 - 75 = \square$				
5.	$201 - 199 = \square$				
6.	<table border="1" style="width: 100%;"> <tr> <td style="width: 20%;">\square</td> <td style="text-align: right;">99</td> </tr> <tr> <td colspan="2" style="text-align: center;">102</td> </tr> </table>	\square	99	102	
\square	99				
102					
7.	$42 + 15 = 57$ $27 + 15 = 42$ $42 - 15 = \square$				
8.	$42 + 24 = 66$ $24 + 18 = 42$ $\square + 24 = 42$				
Sebenzisa amanani amathathu angezantsi kwizibalo ezimbini ngokwahlukeneyo uthabatha:					
$67 + 53 = 120$					
9.	$\square - \square = \square$				
10.	$\square - \square = \square$				
Itotali 10					

Ukubala ngamaShumi: Imemorandam			
Phambi kovavanyo	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
ICANDELO 1	1. 10	1. 53	ICANDELO 1
1. 10	2. 10	2. 48	1. 10
2. 10	3. 3	3. 8	2. 10
3. 3	4. 7	4. 8	3. 3
4. 2	5. 9	5. 1	4. 2
5. 8	6. 10	6. 3	5. 8
6. 10	7. 5	7. 29	6. 10
7. 5	8. 2	8. 7	7. 5
8. 6	9. 10	9. 3; 44	8. 7
9. 10	10. 6	10. 53; 5	9. 10
10. 0	11. 2		10. 0
11. 56	12. 5		11. 57
12. 63	13. 56		12. 63
13. 33	14. 54		13. 33
14. 48	15. 22		14. 48
15. 50	16. 1		15. 50
16. 127	17. 26		16. 127
17. 30	18. 44		17. 30
18. 43	19. 56		18. 42
19. 3	20. 53		19. 3
20. 7	21. 40		20. 7
ICANDELO 2	22. 20		ICANDELO 2
1. 64	23. 6		1. 74
2. 79	24. 33		2. 78
3. 86			3. 86
4. 6			4. 6
5. 75			5. 75
6. 2			6. 2
7. 6			7. 6
8. 54			8. 54
9. 8			9. 8
10. 38			10. 38

Indlela yokwenza utsibo: Imemorandam			
Phambi kovavanyo	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
ICANDELO 1	1. 65	1. 76	ICANDELO 1
1. 54	2. 33	2. 53	1. 52
2. 39	3. 47	3. 39	2. 39
3. 36	4. 3	4. 53	3. 36
4. 47	5. 60	5. 24	4. 47
5. 17	6. 16	6. 15	5. 17
6. 53	7. 32	7. 20	6. 53
7. 44	8. 59	8. 30	7. 44
8. 4	9. 86	9. 20	8. 3
9. 31	10. 40	10. 29	9. 31
10. 11	11. 64		10. 11
11. 60	12. 46		11. 50
12. 48	13. 46		12. 48
13. 54	14. 60		13. 54
14. 46	15. 53		14. 46
15. 40	16. 63		15. 40
16. 39	17. 54		16. 39
17. 20	18. 75		17. 20
18. 89	19. 30		18. 84
19. 40	20. 37		19. 40
20. 46			20. 46
ICANDELO 2			ICANDELO 2
1. 59			1. 69
2. 60			2. 60
3. 30			3. 30
4. 20			4. 20
5. 83			5. 83
6. 59			6. 59
7. 22			7. 22
8. 15			8. 15
9. 30			9. 30
10. 25			10. 25

Ukuphinda kabini nehafu: Imemorandam				
Phambi kovavanyo	Isifundi esiqalayo 1	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
ICANDELO 1	1. Phinda kabini 4 sisi-8	1. 12	1. 64	ICANDELO 1
1. 12		2. 6	2. 52	1. 14
2. 6	Amaqela amabini esi-4 sisi-8	3. 18	3. 21	2. 7
3. 18	Phinda kabini isi-4 sisi-8	4. 14	4. 55	3. 18
4. 16	4 x 2 = 8	5. 8	5. 46	4. 16
5. 6		6. 9	6. 18	5. 7
6. 8	2. Ihafu yesi-8 sisi-4	7. 20	7. 62	6. 8
7. 20	8 Yahlulahlula ngesi-2 sisi-4	8. 3	8. 31	7. 20
8. 7	8 Wohlulwe phakathi kwesi-2 sisi-4	9. 6	9. 63	8. 6
9. 5	8 ÷ 2 = 4	10. 7	10. 2	9. 5
10. 9		11. 16	11. 88	10. 9
11. 30	3. Phinda kabini i-9 li-18	12. 22	12. 76	11. 28
12. 14	Amaqela amabini e-9 li-18	13. 16	13. 43	12. 14
13. 14	Phinda kabini i-9 li-18	14. 60	14. 52	13. 14
14. 200	9 x 2 = 18	15. 100	15. 78	14. 200
15. 40		16. 7	16. 24	15. 40
16. 80	4. Ihafu yama-20 li-10	17. 20	17. 98	16. 80
17. 25	20 Yahlula ngesi-2 li-10	18. 5	18. 49	17. 25
18. 8	20 Hlulela isi-2 li-10	19. 35	19. 97	18. 9
19. 15	20 ÷ 2 = 10	20. 140	20. 2	19. 15
20. 120				20. 120
ICANDELO 2	5. Ukhetho lwabafundi			ICANDELO 2
1. 84				1. 84
2. 72	6. Ukhetho lwabafundi			2. 72
3. 32				3. 32
4. 51				4. 51
5. 94				5. 94
6. 19				6. 19
7. 104				7. 104
8. 39				8. 39
9. 77				9. 77
10. 2				10. 2

Ukufikelelanisa nokuLungelelanisa: Imemorandum			
Phambi kovavanyo	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
ICANDELO 1	1. 86	1. 85	ICANDELO 1
1. 53	2. 47	2. 16	1. 54
2. 39	3. 29	3. 82	2. 39
3. 47	4. 69	4. 226	3. 47
4. 49	5. 97	5. 144	4. 49
5. 117	6. 40	6. 9	5. 148
6. 83	7. 2	7. 2	6. 83
7. 30	8. 1	8. 30	7. 30
8. 3	9. 400	9. 40	8. 3
9. 3	10. Umgca manani wokuqala	10. 80 – 40 + 1	9. 3
10. 2	11. 18		10. 2
11. 71	12. 31		11. 31
12. 78	13. 56		12. 78
13. 41	14. 165		13. 41
14. 175	15. 40		14. 175
15. 37	16. 20		15. 37
16. 50	17. 2		16. 50
17. 1	18. 1		17. 1
18. 100	19. 3		18. 100
19. 200	20. Umgca manani wesibini		19. 200
20. 2			20. 2
ICANDELO 2			ICANDELO 2
1. 63			1. 53
2. 45			2. 25
3. 125			3. 125
4. 135			4. 135
5. 294			5. 294
6. 9			6. 9
7. 2			7. 2
8. 30			8. 30
9. 40			9. 40
10. 80 – 60 + 1			10. 60 – 30 + 1

Ukuhlela kwakhona: Imemorandam			
Phambi kovavanyo	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
ICANDELO 1	1. 8 nesi 2	1. 102	ICANDELO 1
1. 7 nesi 3	2. 4 nesi 6	2. 57	1. 7 nesi 3
2. 4 nesi 6	3. 2	3. 300	2. 4 nesi 6
3. 4	4. 20	4. 83	3. 3
4. 20	5. 36 nama 64	5. 196	4. 20
5. 30 nama 70	6. 45 nama 55	6. 90	5. 30 nama 70
6. 51 nama 49	7. 12	7. 3	6. 51 nama 49
7. 12	8. 14	8. 9	7. 12
8. 17	9. 6	9. 37	8. 17
9. 9	10. 38	10. 4	9. 9
10. 86	11. 157	11. 74 nama 26	10. 86
11. 114	12. 12	12. 2 ne 5	11.132
12. 10	13. 9 nama 21		12. 10
13. 8 ne 12	14. 17 ne 13		13. 8 ne 12
14. 4 ne 16	15. 120		14. 4 ne 16
15. 100	16. 8		15. 100
16. 9	17. 14 ne 6		16. 9
17. 18 ne 12	18. 12 ne 8		17. 18 ne 12
18. 14 ne 16	19. 13		18. 14 ne 16
19. 31	20. 40		19. 31
20. 40			20. 40
ICANDELO 2			ICANDELO 2
1. 104			1. 105
2. 78			2. 98
3. 300			3. 300
4. 106			4. 106
5. 178			5. 178
6. 70			6. 70
7. 6			7. 8
8. 58			8. 58
9. 3			9. 3
10. 88 and 12			10. 36 and 14

Ukuqhagamshela ukuDibanisa nokuThabatha: Imemorandam			
Phambi kovavanyo	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
1. 4	1. 5	1. 5	1. 6
2. 38	2. 48	2. 299	2. 38
3. 91	3. 85	3. 69	3. 91
4. 6	4. 8	4. 6	4. 6
5. 2	5. 3	5. 4	5. 2
6. 2 ne 9	6. 5 ne 8 (hlela chanekileyo) ne 13	6. 5	6. 2 ne 9
7. 11	kwibloko engezantsi	7. 34	7. 11
8. 297	7. 198	8. 25	8. 297
9. 5	8. 6	9. $130 - 52 = 78^*$	9. 5
10. 2	9. 3	10. $130 - 78 = 52^*$	10. 2
11. $20 - 5 = 15$	10. 5	*Iimpendulo	11. $20 - 4 = 16$
12. $15 + 5 = 20$	11. $20 - 3 = 17$	zingatshintshwa.	12. $16 + 4 = 20$
13. $20 - 15 = 5$	12. $17 + 3 = 20$		13. $20 - 16 = 4$
14. $5 + 15 = 20$	13. $20 - 17 = 3$		14. $4 + 16 = 20$
15. 3	14. $3 + 17 = 20$		15. 3
16. 2	15. 4		16. 2
17. 43	16. 3		17. 43
18. 8			18. 8

Ukuqhagamshela ukuDibanisa nokuThabatha: Imemorandam			
Phambi kovavanyo	Iphepha lokusebenzela 1	Iphepha lokusebenzela 2	Emva kovavanyo
19. 5	17. 54		19. 5
20. 7	18. 8		20. 7
ICANDELO 2	19. 5		ICANDELO 2
1. 4	20. 7		1. 5
2. 398			2. 297
3. 87			3. 87
4. 7			4. 7
5. 2			5. 2
6. 3			6. 3
7. 27			7. 27
8. 18			8. 18
9. $120 - 37 = 83^*$			9. $120 - 53 = 67^*$
10. $120 - 83 = 37^*$			10. $120 - 67 = 53^*$
*limpendulo zingatshintshwa.			*limpendulo zingatshintshwa.

Ukuqhagamshela ukuDibanisa nokuThabatha Isifundo Esiqalayo 1: Umsebenzi womfundi ngamnye

$3 + 6 = 9 \checkmark$	$6 - 3 = 9 \times$
$9 = 6 + 3 \checkmark$	$9 - 3 = 6 \checkmark$
$6 + 9 = 3 \times$	$3 = 9 - 6 \checkmark$
$6 + 3 = 9 \checkmark$	$9 - 6 = 3 \checkmark$
$3 + 9 = 6 \times$	$3 - 6 = 9 \times$

Ukuqhagamshela ukuDibanisa nokuThabatha Isifundo Esiqalayo 3: Umsebenzi womfundi ngamnye

Bhala la manani azalanayo kwidayagram echanekileyo ngezantsi. Ze ubhale izivakalisi zamanani zokudibanisa nokuthabatha kula manani azalanayo.

$$5 + 5 = 10 \quad 3 + 4 = 7 \quad 11 + 1 = 12 \quad 2 + 7 = 9$$

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Dibanisa:	Dibanisa:	Dibanisa:	Dibanisa:																
$2 + 7 = 9$	$11 + 1 = 12$	$3 + 4 = 7$	$5 + 5 = 10$																
$7 + 2 = 9$	$1 + 11 = 12$	$4 + 3 = 7$	$10 = 5 + 5$																
$9 = 2 + 7$	$12 = 1 + 11$	$7 = 3 + 4$	Thabatha:																
$9 = 7 + 2$	$12 = 11 + 1$	$7 = 4 + 3$	$10 - 5 = 5$																
Thabatha:	Thabatha:	Thabatha:	$5 = 10 - 5$																
$9 - 2 = 7$	$12 - 1 = 11$	$7 - 4 = 3$																	
$9 - 7 = 2$	$12 - 11 = 1$	$7 - 3 = 4$																	
$7 = 9 - 2$	$11 = 12 - 1$	$4 = 7 - 3$																	
$2 = 9 - 7$	$1 = 12 - 11$	$3 = 7 - 4$																	

