



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Grade 3 Mathematics

Mental Starters Assessment Project (MSAP)

Mental Starters: Tasks and Assessments

TEACHER GUIDE: SISWATI



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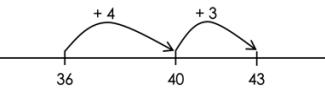
SINGENISO

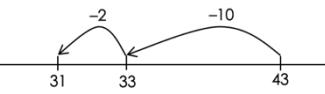
Lenkhomba yaThishela **inemayunithi la-6 Etibalo Tenhloko Tekucalisa Sifundvo** sebafundzi beLibanga 3. **Emasu ekubala** lahlukene acondziswe kyunithi ngayinye. Lamasu ekubala atsetfwe kukharikhulamu. Iyunithi ngayinye ifaka ligcogco lelitsite lemakhono lahambisanako.

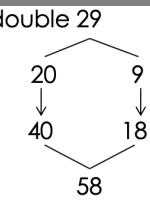
Injongo kuchubekisa bafundzi ekubaleni ngakunye basebentisa iminwe nobe ngemamaki emathali lasephepheni. Kubala ngakunye kudla sikhatsi futsi kuholela ekwenteni emaphutsa. Kuphindze kungabi kahle nangabe kulandzelana kwetinombolo kukhula. Lamasu nemakhono alekelela kumcondvo lophusile wenombolo.

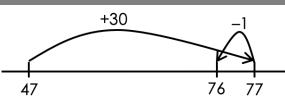
Emasu ekubala la-6 nekulandzelana kwesikhatsi

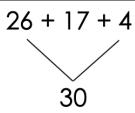
Emayunithi akhona kulamathemu lamatsatfu ekucala njengoba kulandzela:

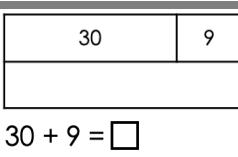
Term 1	Bridging through ten	$36 + 7 =$		= 43
--------	----------------------	------------	--	------

Term 1	Jump Strategies	$43 \frac{5}{5} 12 =$		= 31
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Term 2	Doubling & halving	$\text{Double } 29 =$		= 58
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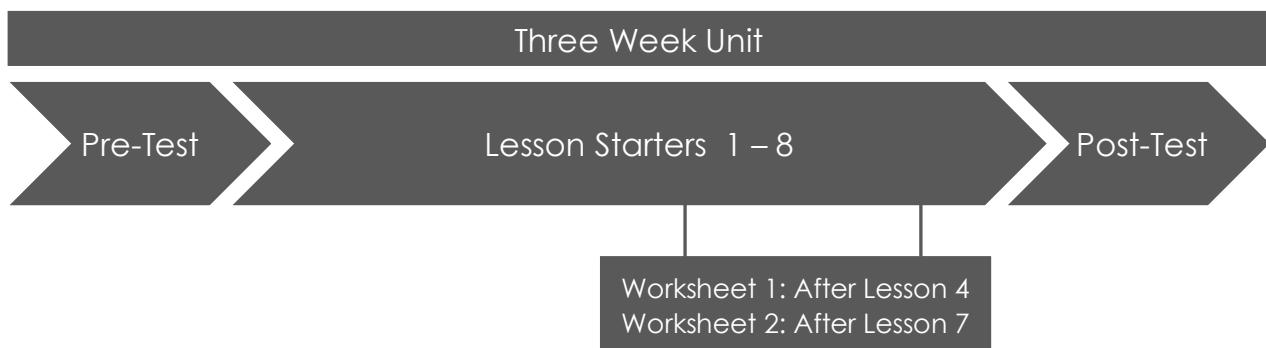
Term 2	Rounding & Adjusting	$47 + 29 =$		= 76
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Term 3	Re-Ordering	$26 + 17 + 4 =$		= 47
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Term 3	Linking addition & subtraction	$\square - 30 = 9$		= 39
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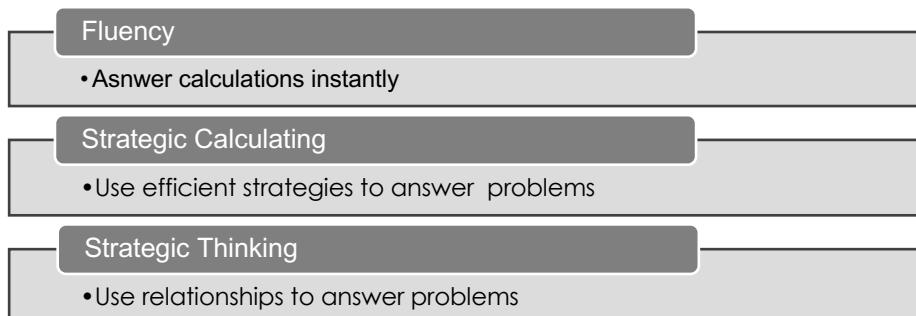
Umfutiso

Iyunithi ngayinye itsatsa emaviki lamatsatfu bese ilandzela lomfutiso:



Iyunithi ngayinye icala iphindze igcine ngesivivinyo lesifisha sebafundzi. Kumaka letivivinyo kuniketa wena nebafundzi lwati lwekutsi batfutfuke kangakanani ekusebentiseni inhlobo letsite yemakhono kulamaviki lamatsatfu.

Kuyunithi ngayinye, siconza ngco tikwetinhlobo tekubala letintsatfu:



Kusebenta ngeKwekulalisa sifundvo kuyunithi ngayinye neliklasi lakho kumele kuholele ekutfutfukiseni lizinga lekusebenta kwebalafundzi kusukela ngembi kuye ngemuva kwetivivinyo. Lentfutfuko ikhomba inchubekela phambili yemakhono etibalo tenhloko nelwati lwetinombolo.

Uyisebentisa njani lenkhomba

Lelibhukwana linemininingwane yetivivinyo nekwekulalisa sifundvo tikweyunithi ngayinye. Lokwekulalisa sifundvo kwakhelwe kutsi kunele **emaminithi la-10** esigaba setemlomo netibalo tenhloko ekucaleni kwesifundvo sakho setibalo.

Kwekulalisa sifundvo ngasinye kucala **ngeliminiti li-1 lekukhaliphisa ingcondvo** lokucondziswe kumakhono labalulekile ekukhumbula ngekusheshisa. Bafundzi kumele baphendvule lemibuto ngekusheshisa nangekutetsema.

Kulandzelana kwemsebenti wekulalisa sifundvo kulandzela kufutfumeta ingcondvo. Kulandzelana kwemsebenti wekulalisa sifundvo ngasinye kuchaza kutsi:

- **ufundzisa njani** lisu (ikhonjiswe esandleni sesancele) nekutsi
- **yini loyibhala** ebhodini (ikhonjiswe esandleni sekudla)

Ngemuva kwekulalisa sifundvo ngasinye **kunemisebenti yangamunye** lekumele bafundzi bayicedze. Bafundzi kumele bazame kakhulu lemisebenti ngenhloko ngekusebentisa lisu lekubala labalifundzile. Tjela bafundzi kutsi **BANGABALI ngaboku-**

1. Nangabe bafundzi bahluleka, bacele kutsi bakukhombise lababalela khona, sib. kumushotinombolo longanalutfo, nobe kumdvwebo we-bha. Umushotinombolo nemdvwebo we-bha kumele ‘ungahleleki’ ngobe injongo kulekelela ekwenteni tenhloko ngekusheshisa.

Cela bafundzi kutsi **bakuchazele labakucabangako** nakulabanye. Loku kutakupha litfuba lekubona kutsi basebentisa lisu lebalifundzile.

Emavidiyo Ekusita: Macondzana neluhla ngalunye Iwekucalisa sifundvo kunelinki yevidiyo lemfisha lekhombisa kutsi lisebenta njani lelisu. Ungayivula lelinki:

- Ngekubukisa ikhamera yamakhalekhukhwini wakho tikwesikwele QR code nobe
- Ngekuthayipha ilinki ye-you.tube tikwe-browser ye-web

Ngemuva kwekucalisa tifundvo 4 ne-7, **kunemaphepha ekutilolonga ngayedvwana** bafundzi labangawasebentisela kutilolonga ngawo emakhaya.

Emamemorandamu angembi nangemuva kwetivivinyo nemaphepha ekusebentela aniketwa ekugcineni kwalenkhomba.

Libhuku le-Print Masters

Kunelibhukwana lelihlukile le-**PRINT MASTERS**:

- lelinako konkhe kwangembii nangemuva kwetivivinyo
- lelinemaphepha ekusebentela ekhaya
- lelinato tonkhe tinsita tekufundzisa letiprintekako

KUNDLULELA ESHUMINI

Singeniso

Injongo kuletifundvo letine tekucala kuhlanganisa ngekndlulela eshumini. Kulokwekucalisa sifundvo lokune lokulandzelako, injongo kususa ngekndlulela eshumini. Leminye yalemisebenti iholwa embili nguthishela ebhodini kantsi leminye yekutsi bafundzi bayente ngekukhululeka.

Emakhono ekukhumbula usheshisa

Kunemakhono ekukhumbula usheshisa lekumele bafundzi bawati kute bandlulele eshumini:

- tinhlanganisela letiya e-10 nemamaltipuli e-10 (sib. 7 + \square = 10; 12 + \square = 20)
- kungeta kumaltipuli ye-10 (sib. 60 + 3 = 63)
- kususa kumaltipuli ye-10 (sib. 60 – 2 = 58)
- kuzubela kumaltipuli ye-10 **lelandzelako** ngemuva kwenombolo (sib. 32 → 40)
- kuzubela kumaltipuli ye-10 lelandzelako **ngembi** kwenombolo (sib. 56 → 50)
- kuntjintja kulandzelana kwekubala (sib. 7 + nani yakha lishumi? Ini uyihlanganise ne-7 yakha lishumi?)

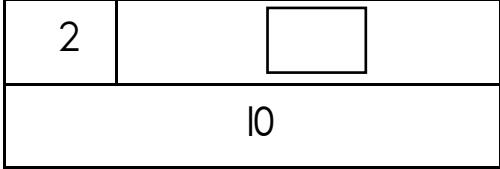
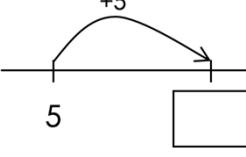
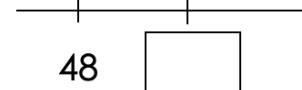
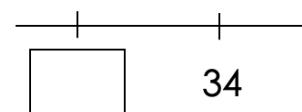
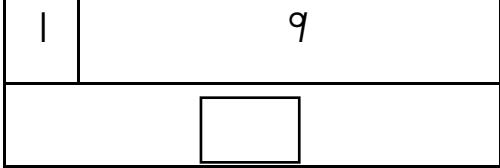
Kundlulela eshumini

Ligama:

Kundlulela eshumini: Ngembi kwesivivinyo

INCENYE YEKUCALA

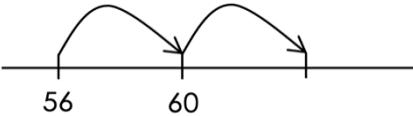
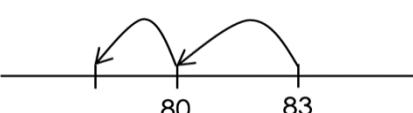
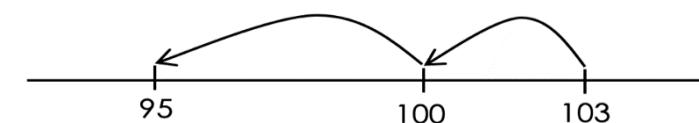
Emamminithi lama-2 alelikhasi

1.	$7 + 3 = \boxed{\quad}$	II.	$50 + 6 = \boxed{\quad}$
2.	$2 + 8 = \boxed{\quad}$	12.	$3 + 60 = \boxed{\quad}$
3.	$10 = 7 + \boxed{\quad}$	13.	$40 - 7 = \boxed{\quad}$
4.	8 sincane nga- <input type="text"/> e-10	14.	$40 + 8 = \boxed{\quad}$
5.		Iyini imal tipuli ye-10 lelandzelako?	
6.		15.	
7.	$10 - 5 = \boxed{\quad}$	16.	$100 + 27 = \boxed{\quad}$
8.	$10 - 4 = \boxed{\quad}$	17.	
9.		18.	<input type="text"/> + 7 = 50
10.	<input type="text"/> + 10 = 10	19.	$30 - \boxed{\quad} = 27$
Samba: 20		20.	$87 = 80 + \boxed{\quad}$

Kundlulela eshumini: Ngembi kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1.	$56 + 8 = \boxed{}$	
2.	$83 - 4 = \boxed{}$	
3.	$93 - 7 = \boxed{}$	
4.	$67 + \boxed{} = 73$	
5.	$\boxed{} + 7 = 82$	
6.	$67 + 5 = 67 + 3 + \boxed{}$	
7.	$94 - \boxed{} = 94 - 4 - 2$	
8.	$98 + 56 = 98 + 2 + \boxed{}$	
9.	$103 - \boxed{} = 95$	
10.	$98 + \boxed{} = 136$	
Samba: 10		

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 1

Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz

Thishela utsi ‘pop’ bese bafundzi batsi ‘fizz’; bese thishela usho inombolo, bese bafundzi baphendvula ngenombolo lehambisana nemakhono ekukhumbula usheshisa.

a. Pop-Fizz Yakha 10

Kulelihumusho, bafundzi kumele baphendvule ngenombolo letokwakha 10.

Thishela: pop	→	Bafundzi: fizz	
Thishela: 3	→	Bafundzi: 7	
Thishela: pop	→	Bafundzi: fizz	
Thishela: 6	→	Bafundzi: 4	njalo njalo...

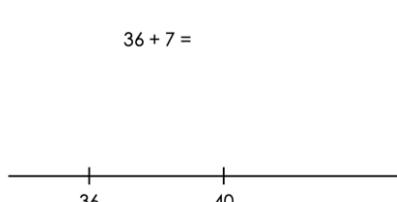
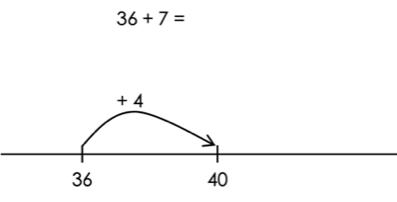
b. Pop-Fizz Yakha 20 (nobe lenye imaltpuli ye-10)

Kulelihumusho, bafundzi kumele baphendvule ngenombolo letokwakha 20 (nobe nguyiphi imaltpuli ye-10).

Thishela: pop	→	Bafundzi: fizz	
Thishela: 16	→	Bafundzi: 4	
Thishela: pop	→	Bafundzi: fizz	
Thishela: 11	→	Bafundzi: 9	njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo, sisebentisa lisu lekundlulela eshumini etibalweni tekuhlanganisa.

Sibalo: $36 + 7$ Bhala ‘ $36 + 7 =$ ’ ebhodini. Dweba umugca bese ubekisa sihloko lesilebulwe ‘36’. Thishela: Siyahlanganisa ngaloko-ke kumele sizube siye phambili. Iyini imaltpuli ye-10 lelandzelako ngemuva kwema-36? Umfundzi kumele ete abekise ‘40’ emgceni.	$36 + 7 =$ 
Thishela: Kumele sizube ka-7 siye phambili kusukela kuma-36. Asizube kanye siye tikwemaltpuli ye-10 lelandzelako kunekuzuba ngaboku-1. 36 ahlanganiswa nani sitfola 40? Bafundzi: 4	$36 + 7 =$ 

<p>Thishela: Singete 4. Kumele singete 7. 7 uhlukana abe ngu-4 nani?</p> <p>Bafundzi: 3 Hlukanisa 7 ku 36 + 7 abe ngu 4 na 3.</p> <p>Thishela: Sitawudzinga kungeta kungaki ngetulu? Bafundzi: 3</p>	
<p>Thishela: Ayini ema-40 ahlanganiswe na-3? Bafundzi: 43 Thishela: Ngako-ke, $36 + 7 = 36 + 4 + 3 = 43$</p>	

Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako *ngenholoko*:

$$48 + 6 \quad 63 + 8$$

Bafundzi kumele bachaze lebakucabangako, sib. "48 + 6, ngingeta 2 kuma-48 kutfola ema-50, bese ngingeta ku-4, ngaloko-ke imphendvulo ngema-54."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenholoko bangadvweba imigcatinombolo letobasita.

Ividiyo yekusita

Kundlulela eshumini 1



<https://youtu.be/iJNrdV3P4s>

Kundlulela eshumini

Ividiyo yekusita

Kundlulela eshumini 2



<https://youtu.be/upvlvkC3Yko>

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 2

Liminiti li-1 lekukhaliphisa ingcondvo

a. Pop-Fizz: Yakha 10 nobe Yakha 20 (nanobe nguyiphi imaltipuli yelishumi)

b. Kuzubela kumaltipuli ye-10 **lelandzelako** (sib. 23 → 30; 56 → 60)

Loku akusiko kusondzeta eshumini lelisedvute kodvwa kuzubela kumaltipuli yelishumi **lelandzelako** kumugcatinombolo.

“Iyini imaltipuli yelishumi **lelandzelako ngemuva...?**”

Thishela: 47 → Bafundzi: 50

Thishela: 32 → Bafundzi: 40 njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa lisu lekundlulela eshumini etibalweni tekuhlanganisa.

<p>Cela bafundzi kutsi bakhumbule lokwentiwe itolo: Sisombulule njani $36 + 7$?</p> <p>Cala ngekudvweba umugca bese ubekisa sihloko ‘36’.</p> <p>Thishela: Siyahlanganisa ngako-ke kumele sizube siye phambili. Iyini imaltipuli yelishumi lelandzelako ngemuva kwe-36?</p> <p>Bafundzi: 40</p> <p>Umfundzi kumele ete abekise umugca.</p> <p>Niketa bafundzi litfuba lekuchaza indlela yekubala ebhodini nekutsi isebeita njani.</p>	<p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $36 + 7 = 43$ $\begin{array}{ccc} & 4 & \\ \swarrow & & \searrow \\ 36 & 40 & 43 \end{array}$ <p>Ngaloko, khombisa ebhodini kutsi kundlulela njani eshumini nawusombulula: $27 + 8$</p> <p>Cala ngekudvweba umugca nekubekisa sihloko lesilebulwe ‘27’ bese usombulula inkinga usebentisa lisu lekundlulela eshumini.</p> $27 + 8 = 35$ $\begin{array}{ccc} & 3 & \\ \swarrow & & \searrow \\ 27 & 30 & 35 \end{array}$
--	--

Umsebenti wangamunye

Bafundzi kumele nyalo bazame sibonelo lesilandzelako *ngenhloko*: $42 + 9$

Bafundzi kumele bachaze labakucabangako, sib. “ $42 + 9$, ngingeta 8 kuma-42 kute ngitfole ema-50, bese ngingeta ku-1 kute ngifike kuma-51”.

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenhloko bangadvweba imigcatinombolo kute ibasite.

Kundlulela eshumini

Ividiyo yekusita

Kundlulela eshumini 3



https://youtu.be/wDEEqU9B_5Q

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 3

Liminiti li-1 lekukhaliphisa ingcondvo

- Kuzubela tikwe-malitipuli ye-10 **lelandzelako** (sib. 23 → 30; 56 → 60)
- Kuhlanganisa kumalitipuli ye-10.

“Ayini...?”

$$\text{Thishela: } 30 + 6 \rightarrow \text{Bafundzi: } 36$$

$$\text{Thishela: } 50 + 2 \rightarrow \text{Bafundzi: } 52$$

$$\text{Thishela: } 70 + 5 \rightarrow \text{Bafundzi: } 75 \quad \text{njalo njalo...}$$

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa indlela yekundlulela eshumini etibalweni tekuhlanganisa.

<p>Khombisa ebhodini kutsi sendlulela njani eshumini nasisombulula: $35 + 8$</p> <p>Calisa ngekudvweba umugca nekubekisa sihloko lesilebulwe ‘35’.</p> <p>Sombulula inkinga ngekusebentisa lisu lekundlulela eshumini.</p>	<p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $35 + 8 = 43$ $\begin{array}{ccccccc} & 35 & & 40 & & 43 \\ & \nearrow 5 & & \nearrow 3 & & \\ 35 + 8 & = & 43 & & & & \end{array}$
---	--

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

$$44 + 8 \quad 39 + 7$$

Bafundzi kumele bachaze labakucabangako, sib. “44 + 8, ngingeta 6 kuma-44 kutfola ema-50, bese ngingeta ku-2 kute ngifike kuma-52”.

Tjela bafundzi kutsi BANGABALI ngabo-1.

Niketa bafundzi labasheshe bacedza umsebenti lomnyenti wekutilolonga:

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

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 4

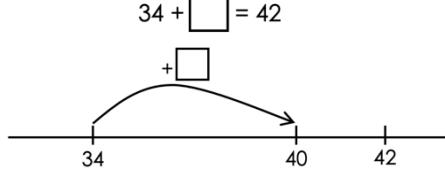
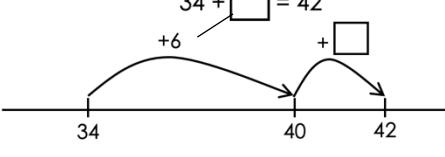
Liminiti li-1 lekukhaliphisa ingcondvo

Tinhlanganisela letiya e-10: Imishotinombolo lesuselwe kumdvwebo we-bha

<p>Thishela: Lona ngumdvwebo we-bha futsi ukhombisa kutsi 7 na-3 kwakha 10.</p> <p>Thishela: 7 usihlanganise nani utfola 10?</p> <p>Bafundzi: 3</p> <p>Thishela: Ngako-ke, 3 umhlanganisa nani 10?</p> <p>Bafundzi: 7</p> <p>Thishela ukhomba kubala ngakunye ebhodini bese liklasi liniketa inombolo lengekho.</p> <p>Chubeka ubute liklasi, ngekuphimisela, niketa tibonelo letinengi usebentisa tinhlanganisela telishumi:</p> <p>1 + nani li-10? Ngako-ke 9 + nani li-10? 2 + nani li-10? Ngako-ke 8 + nani li-10? 6 + nani li-10? Ngako-ke 4 + nani li-10?</p>	<p>Bhala loku lokulandzelako ebhodini:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px; text-align: center;">7</td> <td style="padding: 5px; text-align: center;">3</td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">10</td> </tr> </table> <p>Lungisa ibhodi ngaletibonelo letilandzelako:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px; text-align: center;">2</td> <td style="padding: 5px; text-align: center;">8</td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">10</td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px; text-align: center;">6</td> <td style="padding: 5px; text-align: center;">4</td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">10</td> </tr> </table> <p>$2 + \square = 10$ $8 + \square = 10$ $\square + 4 = 10$ $4 + \square = 10$</p>	7	3	10		2	8	10		6	4	10	
7	3												
10													
2	8												
10													
6	4												
10													

Kulandzelana kwemsebenti

Kulesifundvo, sisebentisa lisu lekundlulela eshumini kute sitfole inombolo lengekho etibalweni tekuhlanganisa.

<p>Sebentisa lisu lekundlulela eshumini kusombulula $34 + \square = 42$.</p> <p>Dweba umugcatinombolo lokhombisa '34' ne '42'.</p> <p>Thishela: Iyini imaltipuli ye-10 lelandzelako ngemuva kwema-34?</p> <p>Bafundzi: 40</p> <p>Bekisa '40' kumugcatinombolo.</p> <p>Thishela: 34 umhlanganisa nani kwakha ema-40?</p> <p>Bafundzi: 6</p> <p>Bhala '6' phakatsi kwebhloki lengetulu kwekuzuba njengoba ukhonjisiwe.</p>	<p>$34 + \square = 42$</p>  <p>$34 + \square = 42$</p>  <p>$34 + \square = 42$</p> 
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Nangabe bafundzi bahlulwa ngulesibonelo, babute, “4 + nani kwakha 10?”

Bafundzi kumele bakhone kuphendvula ‘6’, ngaloko-ke bakhombe kutsi loku kuyafana kuwo onkhe emamaltipuli elishumi:

Ngaloko-ke: $4 + 6 = 10$; $14 + 6 = 20$; $24 + 6 = 30$;

$34 + 6 = 40\dots$

Thishela: Kungetwe ini kuma-40 kute utfole ema-42?

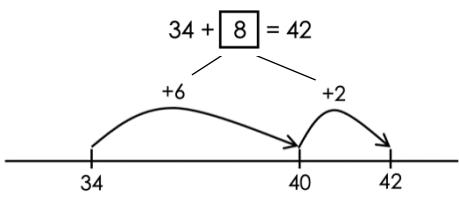
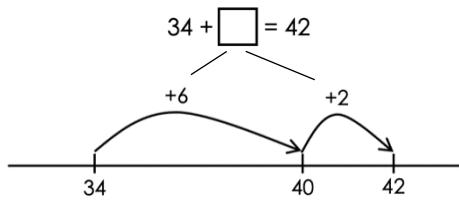
Bafundzi: 2

Thishela: Siyini 6 sihlanganiswe na-2? (khomba 6 na-2 kumdvwebo)

Bafundzi: 8

Thishela: Ngaloko-ke, yini lengetwe kuma-34 kute utfole ema-42?

Bafundzi: 8



Imisebenti yangamunye

Bafundzi kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. “sibonelo sekucala, imaltipuli yelishumi lelandzelako nge-30, ngaloko-ke ngihlanganisa ku-1 na-2 kute ngifike e-30 bese kumele ngihlanganise 5 kute ngifike e-35. 2 kuhlangene ne-5 utfola 7.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 1

Niketa bafundzi Liphepha lekusebentela 1 ekupheleni kwseshini yanamuila.

Ungabakaleli sikhatsi bafundzi nabenta Leliphepha lekusebentela. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wenhloko labawentile.

Ividiyo yesita

Kundlulela eshumini 4

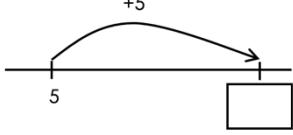
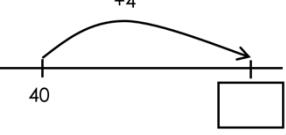
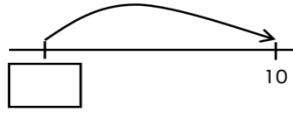
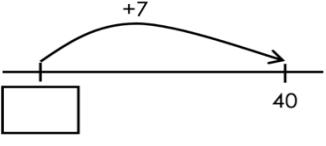


<https://youtu.be/INITWPDMFKY>

Kundlulela eshumini

Ligama:

Kundlulela eshumini: Liphepha lekusebentela I

1. $6 + 4 = \boxed{\quad}$	13. $50 + 6 = \boxed{\quad}$																
2. $1 + 9 = \boxed{\quad}$	14. $50 + 4 = \boxed{\quad}$																
3. 7 sincane nga- <input type="text"/> tikwe-10	15. 8 sincane nge- <input type="text"/> tikwe-30																
4. 10 = 3 + <input type="text"/>	16. $20 = 19 + \boxed{\quad}$																
5. <table border="1"><tr><td>1</td><td></td><td></td><td><input type="text"/></td></tr><tr><td colspan="4">10</td></tr></table>	1			<input type="text"/>	10				17. <table border="1"><tr><td>4</td><td></td><td></td><td><input type="text"/></td></tr><tr><td colspan="4">30</td></tr></table>	4			<input type="text"/>	30			
1			<input type="text"/>														
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30																	
6. 	18. 																
7. $10 - 5 = \boxed{\quad}$	19. $60 - 4 = \boxed{\quad}$																
8. $10 - 8 = \boxed{\quad}$	20. $60 - 7 = \boxed{\quad}$																
9. <table border="1"><tr><td>3</td><td>7</td></tr><tr><td colspan="2"><input type="text"/></td></tr></table>	3	7	<input type="text"/>		21. <table border="1"><tr><td>39</td><td>1</td></tr><tr><td colspan="2"><input type="text"/></td></tr></table>	39	1	<input type="text"/>									
3	7																
<input type="text"/>																	
39	1																
<input type="text"/>																	
10. <input type="text"/> + 4 = 10	22. <input type="text"/> + 3 = 23																
11. $8 + \boxed{\quad} = 10$	23. $30 + \boxed{\quad} = 36$																
12. 	24. 																

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngendlela yekndlulela eshumini. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa tikwekucalisa sifundvo lesilandzelako.

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 5

Liminiti li-1 lekukhaliphisa ingcondvo

a. Kuzuba uye kumaltipuli yelishumi **ngembi**

Loku akusiko kusondzeta eshumini lelisedvute kepha kuzubela kumaltipuli ye-10 **ngembili** kumugcatinombolo.

“Ngiphe imaltipuli yelishumi leta **ngembi**...”

Thishela: 26 → Bafundzi: 20

Thishela: 53 → Bafundzi: 50 njalo njalo...

b. Kususa kumaltipuli yelishumi

“Ayini...?”

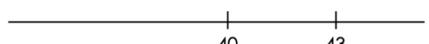
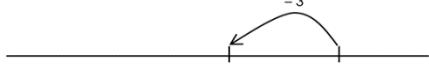
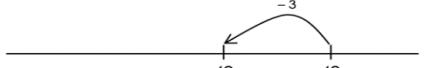
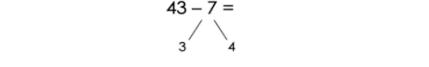
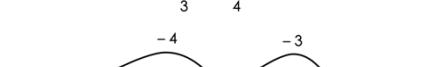
Thishela: 30 – 6 → Bafundzi: 24

Thishela: 50 – 2 → Bafundzi: 48

Thishela: 70 – 5 → Bafundzi: 65 njalo njalo...

Kulandzelana wemsebenti

Kulesifundvo, sisebentisa lisu lekundlulela eshumini kute sisombulule tibalo tekususa.

<p>Sibalo: $43 - 7$ Bhala ‘$43 - 7 =$’ ebhodini. Dwewba umugca ubekisa likhona lelidebulwe ‘43’.</p> <p>Thishela: Siyasusa ngaloko-ke kumele sizube siye emuva. Iyini imaltipuli yelishumi ngembi kwema-43?</p> <p>Bafundzi: 40</p> <p>Umfundzi kumele ete abekise umugca.</p>	$43 - 7 =$ 
<p>Thishela: Kumele sizube ka-7 siye emuva. Asizube kanye siye kumaltipuli ye-10 kunekubala siye emuva ngabo-1. 43 ususe ini utfola 40?</p> <p>Thishela: 3</p>	$43 - 7 =$ 
<p>Thishela: Sisuse 3. Kumele sisuse sikhombisa. 7 uhlukana abe ngu-3 nani?</p> <p>Bafundzi: 4</p> <p>Hlukanisa 7 ku $43 - 7$ ibe ngu-3 na-4.</p> <p>Thishela: Sidzinga kungaki ngetulu kute sisuse?</p> <p>Bafundzi: 4</p>	$43 - 7 =$  $43 - 7 =$ 
<p>Thishela: Ayini ema-40 uwasuse ku-4?</p> <p>Thishela: 36</p> <p>Thishela: Ngaloko-ke, $43 - 7 = 43 - 3 - 4 = 36$. Rekhoda sisombululo kumushotinombolo.</p>	$43 - 7 = 36$ 

Imisebenti yangamunye

Bafundzi kumele bazame tibonelo letilandzelako *ngenhloko*:

54 – 6 63 – 5

Bafundzi kumele bachaze labakucabangako, sib. “54 – 6, ngisusa 4 kuma-54 kute ngitfole ema-50, bese ngisusa 2, ngaloko-ke imphendvulo ngema-48.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenhloko bangadvweba imigcatinombolo lengakahleleki letobasita.

Ividiyo yekusita

Kundlulela eshumini 5



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

Kundlulela eshumini

Ividiyo yekusita

Kundlulela eshumini 6



<https://youtu.be/JvNKtAdrzfM>

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 6

Liminiti li-1 lekukhaliphisa ingcondvo

- Kuzuba uye kumaltipuli yelishumi **ngembi** (sib. 23 → 20; 56 → 50)
- Kususa kumaltipuli yelishumi (sib. 30 – 3 → 27; 40 – 6 → 34)

Kulandzelana kwemsebenti

Kulesifundvo, sisebentisa lisu lekundlulela eshumini kute sisombulule tibalo tekususa.

<p>Cela bafundzi kutsi bazame kukhumbula kwayitolo: Sisombulule njani 43 – 7?</p> <p>Cala ngekudvweba umugca bese ubekisa likhona lelilebulwe ‘43’.</p> <p>Niketa bafundzi litfuba lekuchaza indlela yekubala nekutsi isebeita njani, bese ukhombisa ebhodini.</p>	<p>Sipheto, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $43 - 7 = 36$
<p>Ngaloko, khombisa ebhodini kutsi ungandlulela njani eshumini kute usombulule: 27 – 8</p> <p>Cala ngekudvweba umugca bese ubekisa likhona lelilebulwe ‘27’ usombulule inkinga ngekusebentisa lisu lekundlulela eshumini.</p>	<p>Sipheto, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $27 - 8 = 19$

Umsebenti wangamunye

Bafundzi nyalo kumele bazame sibonelo lesilandzelako *ngenholoko*: 35 – 7

Bafundzi kumele bachaze labakucabangako, sib. “35 – 7, ngente 35 – 5 kute ngitfole 30 ngabese ngisusa 2 kute ngitfole 28.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenholoko bangadvweba imishotinombolo letobasita.

Niketa bafundzi labasheshe bacedza umsebenti lomnengi wekutilolonga:

42 – 8

62 – 6

84 – 7

Kundlulela eshumini

Ividiyo yekusita

Kundlulela eshumini 7



https://youtu.be/npm_pVwiXD4

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 7

Liminiti li-1 lekukhaliphisa ingcondvo

- Kuzuba uye kumaltipuli yelishumi **ngembi** (sib. 23 → 20; 56 → 50)
- Kususa kumaltipuli ye-10 (sib. 30 – 3 → 27; 40 – 6 → 34)

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa lisu lekundlulela eshumini kute sisombulule tibalo tekususa.

<p>Khombisa ebbodini kutsi kundlulwa njani eshumini kute usombulule: 35 – 8</p> <p>Cala ngekudvweba umugca bese ubekisa likhona lelilebulwe ‘35’.</p> <p>Sombulula inkinga ngekusebentisa lisu lekundlulela eshumini.</p>	<p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $\begin{array}{ccc} & 35 - 8 = 27 & \\ & \swarrow \quad \searrow & \\ 5 & & 3 \end{array}$
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame sibonelo lesilandzelako *ngenholoko*: 25 – 8 36 – 7

Bafundzi kumele bachaze labakucabangako, sib. “25 – 8, ngentile 25 – 5 kute ngitfole ema-20 ngabese ngisusa ku-3 kute ngitfole li-.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenholoko bangadvweba imigcatinombolo itobasita.

Niketa bafundzi labasheshe bacedza umsebenti lomnengi wekutilolonga:

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

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 2

Nika bafundzi Liphepha lekusebentela 2 ekupheleni kweneshini yanamuha.

Ungabakaleli sikhatsi bafundzi nabenta Leliphepha lekusebentela. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wenhloko labawentile.

Kundlulela eshumini

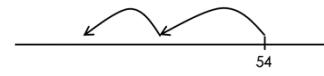
Ligama:

Kundlulela eshumini: Liphepha lekusebentela 2

1. $45 + 8 = \boxed{}$



2. $54 - 6 = \boxed{}$



3. $26 + \boxed{} = 34$

4. $27 + \boxed{} = 27 + 3 + 5$

5. $32 + 9 = 32 + 8 + \boxed{}$

6. $67 + 6 = 67 + 3 + \boxed{}$

7. $44 + \boxed{} = 44 + 6 + 23$

8. $32 - \boxed{} = 32 - 2 - 5$

9. $97 + \boxed{} + \boxed{} = 144$

10. $153 - \boxed{} - \boxed{} = 95$

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngelisu lekundlulela eshumini. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa ngembi kwekulala sifundvo lesilandzelako.

KUNDLULELA ESHUMINI: KWEKUCALISA SIFUNDVO 8

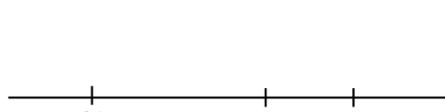
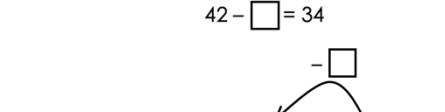
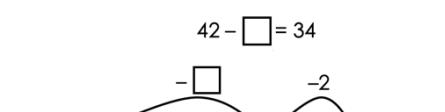
Liminiti li-1 lekukhaliphisa ingcondvo

Tinhlanganisela letakha li-10: Imishotinombolo lesuselwa kumdvwebo we-bha.

<p>Thishela: Lona ngumdvwebo we-bha kantsi ukhomba kutsi 7 na-3 kwakha 10. Singaphindze sibone kutsi $10 - 7 = 3$ nasibuka kulomdvwebo.</p> <p>Thishela: Ngaloko-ke 10 ususe ini utfola ku-3?</p> <p>Bafundzi: 7</p> <p>Thishela: Ngako-ke, 10 ususe ini utfola 7?</p> <p>Bafundzi: 3</p> <p>Thishela ukhomba kubala ngakunye ebhodini bese liklasi liniketa inombolo lengekho.</p> <p>Chubeka ubute liklasi, ngekuphimisela, tibonelo letinyenti usebentisa inhlanganisela yelishumi: 10 ususe ini utfola 1? 10 ususe ini utfola 9? 10 ususe ini utfola 2? 10 ususe ini utfola 8? 10 ususe ini utfola 4? 10 ususe ini utfola 6?</p>	<p>Bhala loku lokulandzelako ebhodini:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 10px; text-align: center;">7</td> <td style="padding: 10px; text-align: center;">3</td> </tr> <tr> <td colspan="2" style="padding: 10px; text-align: center;">10</td> </tr> </table> <p>Lungisa ibhodi ngaletibonelo:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px; text-align: center;">2</td> <td style="padding: 5px; text-align: center;">8</td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">10</td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px; text-align: center;">6</td> <td style="padding: 5px; text-align: center;">4</td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">10</td> </tr> </table> $10 - \square = 6$ $10 - \square = 4$ $10 - \square = 2$ $10 - \square = 8$	7	3	10		2	8	10		6	4	10	
7	3												
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2	8												
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6	4												
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Kulandzelana kwemsebenti

Kulesifundvo sisebentisa lisu lekundlulela eshumini kute sitfole inombolo lengekho kuletibalo tekususa.

<p>Sebentisa lisu lekundlulela eshumini kute usombulule $42 - \square = 34$</p> <p>Dweba umugcatinombolo lokhombisa '42' na '34'.</p> <p>Thishela: Iyini imal tipuli yelishumi ngembi kwema-42?</p> <p>Bafundzi: 40</p> <p>Bekisa '40' kumugcatinombolo.</p> <p>Thishela: 42 ususe ini kusala 40?</p> <p>Bafundzi: 2</p> <p>Bhala '2' phakatsi kwebhloki lengetulu kwekuzuba.</p> <p>Bafundzi: Sisusa ini kuma-40 kute sitfole ema-34?</p> <p>Bafundzi: 6</p> <p>Nangabe bafundzi bahluleka ngalesibonelo, babute, "10 ususe ini kusala 4?"</p>	$42 - \square = 34$  $42 - \square = 34$  $42 - \square = 34$ 
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<p>Bafundzi kumele bakhone kuperendvula '6', ngaloko-ke bakhombe kutsi loku kuyafana kuwo onkhe emamaltipuli elishumi; ngaloko-ke: $10 - 6 = 4$; $20 - 6 + 14$; $30 - 6 = 24$; $40 - 6 = 34$ njii.</p> <p>Thishela: Siyini 6 sihlanganisa na-2? (khomba 6 na-2 kumdvwebo)</p> <p>Bafundzi: 8</p> <p>Thishela: Ngaloko-ke, 42 ususe ini sitfola 34?</p> <p>Bafundzi: 8</p>	
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenholoko*:

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

Bafundzi kumele bachaze labakucabangako, sib. "35 - \square = 28, imaltipuli yelishumi ngembi kwema-35 ngema-30, ngisusa 5 kute ngifike ema-30 ngaloko-ke kumele ngisuse ku-2 kute ngitfole ema-28. 5 sihlanganisa na-2 sitfola 7."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenholoko bangadvweba imigcatinombolo letobasita.

Ividiyo yekusita

Kundlulela eshumini 8



<https://youtu.be/9YSl0ijDOso>

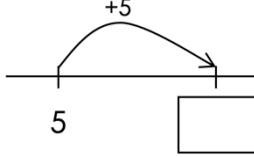
Kundlulela eshumini

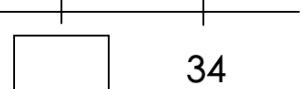
Ligama:

Kundlulela eshumini: Ngemuva kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

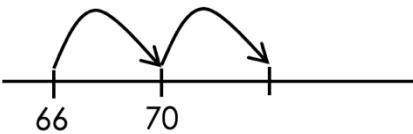
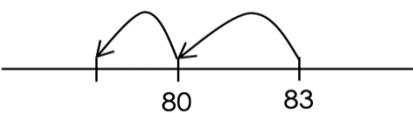
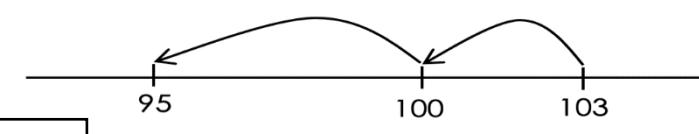
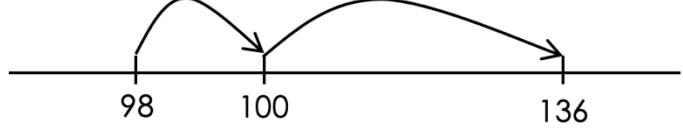
1.	$6 + 4 =$ <input type="text"/>	II.	$50 + 7 =$ <input type="text"/>									
2.	$2 + 8 =$ <input type="text"/>	12.	$3 + 60 =$ <input type="text"/>									
3.	$10 = 7 +$ <input type="text"/>	13.	$40 - 7 =$ <input type="text"/>									
4.	$8 \text{ mncane e-}10 \text{ nga}$ <input type="text"/>	14.	$40 + 8 =$ <input type="text"/>									
5.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px; width: 25%;">2</td> <td style="padding: 5px; width: 50%; text-align: center;">_____</td> <td style="padding: 5px; width: 25%; text-align: right;">_____</td> </tr> <tr> <td colspan="3" style="height: 20px;"></td> </tr> <tr> <td colspan="3" style="text-align: center; padding-top: 5px;">10</td> </tr> </table>			2	_____	_____				10		
2	_____	_____										
10												
6.												
7.	$10 - 5 =$ <input type="text"/>	15.	Iyini imal tipuli ye-10 lelandzelako? _____									
8.	$10 - 3 =$ <input type="text"/>	16.	$100 + 27 =$ <input type="text"/>									
9.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px; width: 25%;">I</td> <td style="padding: 5px; width: 50%; text-align: center;">9</td> <td style="padding: 5px; width: 25%; text-align: right;">_____</td> </tr> <tr> <td colspan="3" style="height: 20px;"></td> </tr> <tr> <td colspan="3" style="text-align: center; padding-top: 5px;">_____</td> </tr> </table>			I	9	_____				_____		
I	9	_____										

10.	<input type="text"/> + 10 = 10	17.										
18.	<input type="text"/> + 8 = 50	19.	$30 -$ <input type="text"/> = 27									
20.	$87 = 80 +$ <input type="text"/>											
Samba: 20												

Kundlulela eshumini: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alekhiasi

1.	$66 + 8 = \boxed{}$	
2.	$83 - 5 = \boxed{}$	
3.	$93 - 7 = \boxed{}$	
4.	$67 + \boxed{} = 73$	
5.	$\boxed{} + 7 = 82$	
6.	$67 + 5 = 67 + 3 + \boxed{}$	
7.	$94 - \boxed{} = 94 - 4 - 2$	
8.	$98 + 56 = 98 + 2 + \boxed{}$	
9.	$103 - \boxed{} = 95$	
10.	$98 + \boxed{} = 136$	
Samba: 10		

EMASU EKUZUBA

Singeniso

Injongo yaletifundvo letine tekucala kuhlanganisa usebentisa emasu ekuzuba. Kulokwekucalisa sifundvo lokune lokulandzelako, Injongo kususa usebentisa emasu ekuzuba. Leminye yalemisebenti iholwa embili nguthishela ebhodini kantsi leminye yekutsi bafundzi bayente ngekukhululeka.

Emakhono ekukhumbula usheshisa

Kunemakhono ekukhumbula usheshisa lasitfupha lekumele bafundzi bawati nabasebentisa emasu ekubala uzuba:

- bala uchubekele embili nobe emuva ngema-10 kusukela kunobe nguyiphi inombolo (sib. 12, 22, 32, nobe 57, 47, 37, ...)
- ngeta nobe susa li-10 kunobe nguyiphi inombolo (sib. $43 + 10 = 53$ nobe $89 - 10 = 79$)
- ngeta imaltipuli ye-10 kunobe nguyiphi inombolo (sib. $61 + 20 = 81$)
- susa imaltipuli yelishumi kunobe nguyiphi inombolo (sib. $46 - 30 = 16$)
- kuzubela kumaltipuli yelishumi ngemuva kwenombolo (sib. $32 \rightarrow 40$)
- kuzubela kumaltipuli yelishumi ngembi kwenombolo (sib. $56 \rightarrow 50$)

Ligama:

Emasu ekuzuba: Ngembi kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

1. Gcwalisa inombolo lengekho.

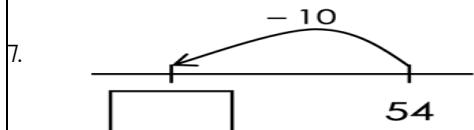
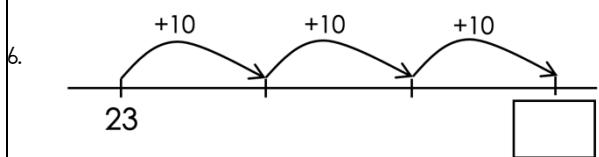
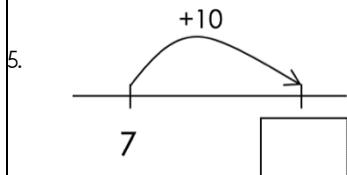
14, 24, 34, 44,

2. Gcwalisa inombolo lengekho.

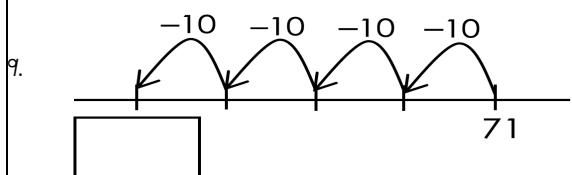
79, 69, 59, 49,

3. $6 + 30 = \boxed{\quad}$

4. $57 - 10 = \boxed{\quad}$



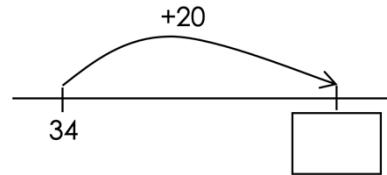
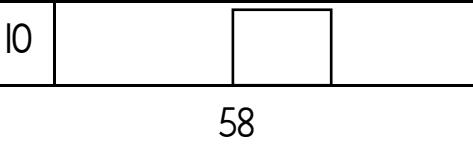
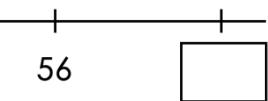
8. $36 + \boxed{\quad} = 40$



10. $31 - 20 = \boxed{\quad}$

Samba: 20

Iyini imaltipuli ye-10 lelandzelako?



14. $16 + 30 = \boxed{\quad}$

Iyini imaltipuli ye-10 ngembi kwema-48?



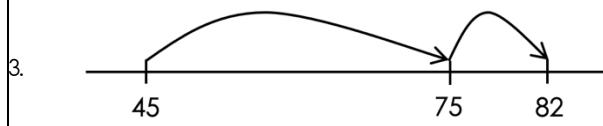
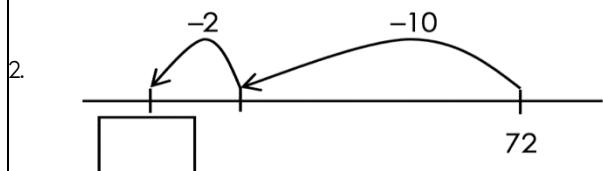
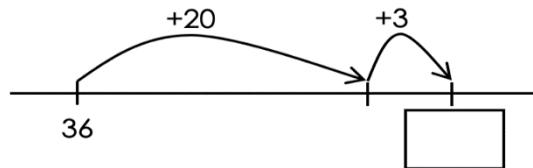
16. $79 - 40 = \boxed{\quad}$

17. $38 - \boxed{\quad} = 18$

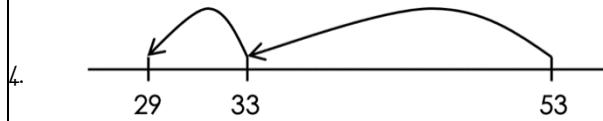
18. $\boxed{\quad} - 20 = 69$

19. $37 + \boxed{\quad} = 77$

20. $\boxed{\quad} + 20 = 66$



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



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

5. $57 + 26 = \boxed{\quad}$

6. $83 - 24 = \boxed{\quad}$

7. $19 + \boxed{\quad} = 41$

8. $62 - \boxed{\quad} = 47$

9. $61 - 32 = 61 - \boxed{\quad} - 2$

10. $74 - \boxed{\quad} = 74 - 20 - 5$

Samba: 10

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 1

Liminiti li-1 lekukhaliphisa ingcondvo

a. Tungeleta likamelo kali-10 ngetulu (ungantjintjanisa nekuphendvula kweliklasi lonkhe)

Thishela usho inombolo bese bafundzi baphendvula ngekutungeleta likamelo kali-10 ngetulu kwenombolo yekugcina.

Thishela: 16

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

b. Tungeleta likamelo ka-10 ngaphasi (ungantjintjanisa nekuphendvula kweliklasi lonkhe)

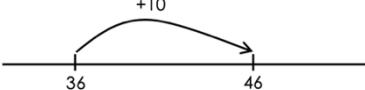
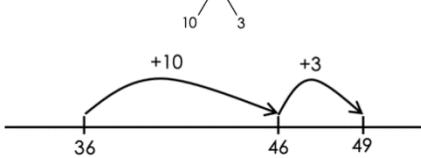
Thishela usho inombolo bese bafundzi bayaphendvula tungeleta likamelo kunciphe ngeli-10 kunombolo yekugcina.

Thishela: 128

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

Kulandzelana kwemsebenti

Kulesifundvo setfula emasu ekuzuba kute sisombulule tinkinga tekuhlanganisa.

<p>Inkinga: $36 + 13$ Bhala '36 + 13 =' ebhodini. Bhala 36 edvute nalakucala khona umugca (ngobe kuhlanganisa kusho kutsi sitawuzuba siye embili).</p>	$36 + 13 =$ 
<p>Thishela: Kumele sizube siye embili ka-13. Asihlahlele 13 libe li-10 na-3. Ayini 36 + 10? Bafundzi: 46 Dweba + kuzuba loku-10, wehlela ema-46.</p>	$36 + 13 =$ 
<p>Thishela: Kusamele sizube siye embili ka-3. Ayini ema-46 ahlangene na-3? Bafundzi: 49 Bhala kumugcatinombolo njengoba ukhonjisiwe. Thishela: Silandzela letindlela tekwenta:</p> <ul style="list-style-type: none"> • Sibhala inombolo yekucala • Sihlahlela inombolo yesibili lesiyihlanganisaako • Sizuba emashumi bese kuta emayunithi • Siniketa imphendvulo 	$36 + 13 = 49$  $36 + 10 + 3 = 49$

Emasu ekuzuba

Thishela: Ngaloko-ke 36 + 13 afana ne 36 + 10 + 3 = 49 ngoba singete 13 ngekuhlanganisa li- 10 kucala, bese kuta ku-3. Bhala imishotinombolo njengoba ukhonjisiwe.	
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Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. 64 + 12, ngingeta li-10 ku-64 kute ngitfole e-74, bese ngingeta 2, ngaloko-ke imphendvulo nge-76."

Tjela bafundzi kutsi BANGABALI ngaboku-1

Bafundzi labahluleka kwenta loku ngenhloko bangadvweba imigcatinombolo lengakahleleki letobasita.

Ividiyo yekusita

Emasu ekuzuba 1



<https://youtu.be/FPTVoIFFd3k>

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 2

Liminithi li-1 lekukhaliphisa ingcondvo

Pop Fizz: Kunengi nge-10 nobe kuncane nge-10

- a. Thishela utsi ‘pop’, bafundzi batsi ‘fizz’; thishela usho inombolo, bafundzi baphendvule **kunengi nge-10** (nobe kunengi ngemaltipuli ye-10):

Thishela: pop	→	Bafundzi: fizz	
Thishela: 3	→	Bafundzi: 13	
Thishela: pop	→	Bafundzi: fizz	
Thishela: 53	→	Bafundzi: 63	njalo njalo...

- b. Thishela utsi ‘pop’, bafundzi batsi ‘fizz’; thishela usho inombolo, bafundzi baphendvule **kuncane nge-10** (nobe kuncane ngemaltipuli ye-10):

Thishela: pop	→	Bafundzi: fizz	
Thishela: 49	→	Bafundzi: 39	
Thishela: pop	→	Bafundzi: fizz	
Thishela: 78	→	Bafundzi: 68	njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo, sisebentisa emasu ekuzuba kute sisombulule tinkinga tekuhlanganisa.

<p>Cela bafundzi kutsi bakhumbule kulokwentiwe itolo: Sisombulule njani $36 + 13$? Cala ngekudvweba umugca nekubekisa likhona lelibhalwe ‘36’. Vumela bafundzi kutsi bachaze indlela yekubala kulona lahleti naye, bese ubuta ipheya yinye kutsi ikukhombise ebhodini. Khumbuta bafundzi ngetindlela labatifundze ngemuva: bhala, hlahlela, zuba bese uyaphendvula.</p>	<p>Kwekugcina, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $\begin{array}{ccc} 36 & +10 & 46 \\ & \swarrow & \searrow \\ & 13 & \\ & +3 & \\ & \searrow & \swarrow \\ & 49 & \end{array}$
<p>Bese, ukhombisa ebhodini kutsi ungalisebentisa njani lisu lekuzuba kute usombulule: $47 + 21$</p> <ul style="list-style-type: none"> • Bhala 47 ebhodini. • Hlahlela 21 abe nge-20 naku-1 • Zuba uye embili nge-20 bese uzuba uya embili ka-1. Labanye bafundzi batawuzuba baye embili ngema-10 lamabili esikhundleni sekuzuba kanye baye embili nge-20 – loku kulungile. • Niketa imphendvulo. <p>Thishela: Ngaloko-ke $47 + 21$ ayafana ne $47 + 20 + 1 = 68$ Bhala imishotinombolo njengoba ukhonjisive.</p>	<p>Kwekugcina, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $\begin{array}{ccc} 47 & +20 & 67 \\ & \swarrow & \searrow \\ & 21 & \\ & +1 & \\ & \searrow & \swarrow \\ & 68 & \end{array}$ $47 + 20 + 1 = 68$

Emasu ekuzuba

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko* 43 + 24 31 + 25

Bafundzi kumele bachaze labakucabangako, sib. “43 + 24, ngingeta 20 kute ngitfole 63, bese ngingeta ku-4, ngaloko-ke imphendvulo ngema-67.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Ividiyo yekusita

Emasu ekuzuba 2



<https://youtu.be/6RkP5bSplNQ>

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 3

Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz: Kunyenti nge-10 nobe kuncane nge-10; kunyenti ngema-20 nobe kuncane ngema-20

Kulandzelana kwemsebenti

Kulesifundvo selula emasu ekuzuba kute sifake ekhatsi sinyatselo sekundlulela eshumini.

<p>Khombisa ebhodini kutsi singawasebentisa njani emasu ekuzuba kute sisombulule: $35 + 16$</p> <p>Bhala umushotinombolo ebhodini bese udvweba umugcatinombolo longanalutfo.</p> <ul style="list-style-type: none"> • Bhala 35 kumugcatinombolo. • Hlahlela 16 libe li-10 ne-6 • Zuba uye phambili kali-10 uyofika ema-45. Zuba 6 lesisele ngekuwela kahle kumaltipuli ye-10 lelandzelako (lawa ngema-50). Ngaloko-ke 6 kumele ahlahlelwabe si-5 naku-1. Zuba uye phambili nge-5 nangaku-1. • Niketa imphendvulo. <p>Thishela: Ngaloko $35 + 16$ ufana $35 + 10 + 6 = 51$ nobe $35 + 10 + 5 + 1 = 51$.</p> <p>Bhala umushotinombolo njengoba ukhonjisiwe.</p>	<p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $\begin{array}{c} 35 + 16 = 51 \\ \begin{array}{c} 10 \quad 6 \\ \swarrow \quad \searrow \\ 5 \quad 1 \end{array} \\ \begin{array}{ccccccc} & +10 & & +5 & & +1 & \\ \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright \\ 35 & \longrightarrow & 45 & \longrightarrow & 50 & \longrightarrow & 51 \end{array} \\ 35 + 10 + 6 = 51 \\ 35 + 10 + 5 + 1 = 51 \end{array}$
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

$$39 + 23 \qquad 68 + 35$$

Bafundzi kumele bachaze labakucabangako, sib. "39 + 23, ngingeta 20 kuma-39 kute ngitfole 59, bese uneta 1 kute utfole 60, bese ngingeta 2, ngaloko-ke imphendvulo ngema-62."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Niketa labasheshe bacedza umsebenti longetiwe wekutilolonga:

$$36 + 28 \qquad 47 + 34$$

Emasu ekuzuba

Ividiyo yekusita

Emasu ekuzuba 3



<https://youtu.be/JAGey218ADw>

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 4**Liminiti li-1 lekukhaliphisa ingcondvo**

Kuzuba uye kumaltipuli yelishumi **lelilandzelako**

Loku akusiko kusondzeta eshumini lelisedvute kodwa kuzuba uye kumaltipuli yelishumi **lelilandzelako** kumugcatinombolo.

“Iyini imaltipuli yelishumi **lelandzelako ngemuva kwema-...?**”

Thishela: 47	→	Bafundzi: 50		
Thishela: 55	→	Bafundzi: 60		
Thishela: 32	→	Bafundzi: 40	njalo njalo...	

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa emasu ekuzuba kute sisombulule tinkinga tetinombolo letingekho.

Khombisa ebhodini kutsi singawasebentisa njani emasu ekubala uzuba kute sisombulule $23 + \square = 37$ ngalendlela:

Bhala umushotinombolo ebhodini bese udvweba umugcatinombolo longenalutfo.

Bhala ‘23’ kumugcatinombolo.

Thishela: Kumele sizube siye phambili sifike ema-37.

Bekisa 37 kumugcatinombolo.

Thishela: Kuyini kuzuba kwemashumi nekwemayunithi, lekumele sikwente?

Bafundzi: Zuba 10 kute ufike ema-33 bese uzuba ka-4 kute ufike ema-37.

Dweba lokuzuba kumugcatinombolo.

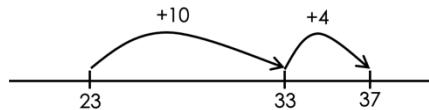
Thishela: Sizube kungaki sekuhlangene?

Bafundzi: 14

Bhala 14 ebhlokini.

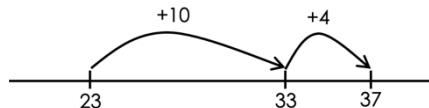
Thishela: Ngaloko-ke $23 + 10 + 4$ ufana ne $23 + 14 = 37$.

$$23 + \square = 37$$



$$23 + \boxed{14} = 37$$

10
4

**Imisebenti yangamunye**

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib., “ $45 + \square = 67$, ngingeta 20 kuma-45 kute ngitfole 65, bese ngingeta 2 kute ngitfole 67, ngaloko-ke kuzuba sekuhlangene ngema-22.”

Emasu ekuzuba

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Niketa labasheshe bacedza umsebenti longetiwe wekutilolonga:

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

Umsebenti wekuya nawo ekhaya – Liphepha lekusebentela 1

Niketa bafundzi Liphepha lekusebentela 1 ekugcineni kweseshini yanamuha.

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti labawufundzako wetenhloko.

Ividiyo yekusita

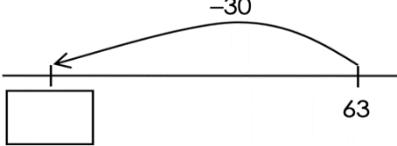
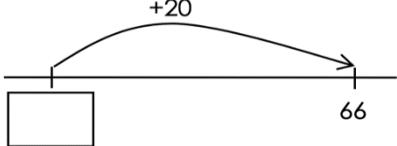
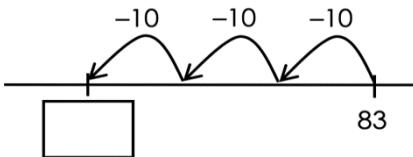
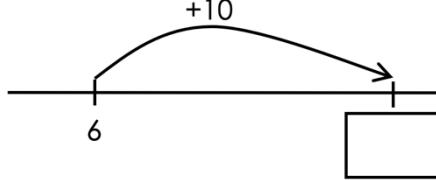
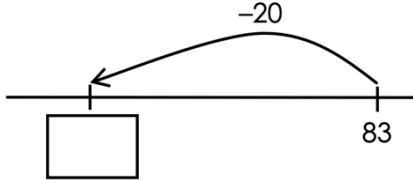
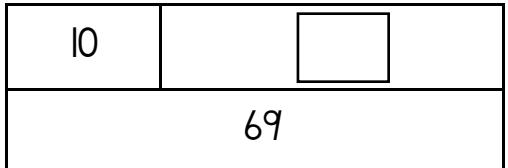
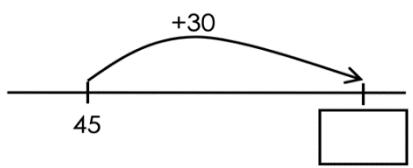
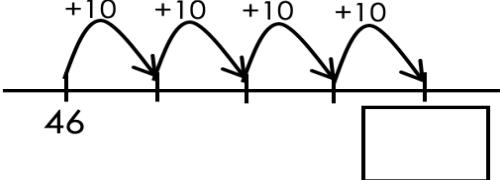
Emasu ekuzuba 4



<https://youtu.be/A9vFXHWkzUo>

Ligama:

Emasu ekuzuba: Liphepha lekusebentela I

I. $75 - 10 = \boxed{}$	II. $14 + 50 = \boxed{}$
2. 	12. 
3. 17 27 37 $\boxed{}$ 57	13. 86 76 66 56 $\boxed{}$
4. $47 + \boxed{} = 50$	14. $68 - \boxed{} = 8$
5. Iyini imal tipuli ye-10 lelandzelako?	
	15. 
6. 	16. 
7. $52 - 20 = \boxed{}$	17. $4 + 50 = \boxed{}$
8. 	18. 
9. 	19. Iyini imal tipuli ye-10 ngembali kwema-37?
10. $45 + \boxed{} = 85$	20. $97 - 60 = \boxed{}$

Emasu ekuzuba

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu lahlukene. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa kulokwekucala sifundvo lesilandzelako.

Emasu ekuzuba

Ividiyo yekusita

Emasu ekuzuba 5



<https://youtu.be/dFV5gmY68Sc>

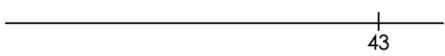
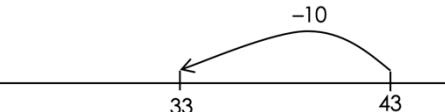
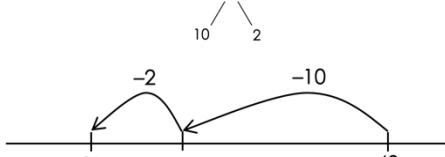
EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 5

Liminiti li-1 lekukhaliphisa ingcondvo

- Tungeleta likamelo ungete nge-10
- Tungeleta likamelo unciphise nge-10

Kulandzelana kwemsebenti

Kulesifundvo setfula emasu ekuzuba kute sisombulule tibalo tekususa.

<p>Sibalo: $43 - 12$ Bhala '43 - 12 = ebhodini'. Bhala '43' ngasekugcineni kwemugca (ngobe kususa kusho kutsi sitawuzuba siye emuva).</p>	$43 - 12 =$ 
<p>Thishela: Kufanele sizube siye emuva ka-12. Asihlahlele 12 libe li-10 na-2. Ayini 43 - 10? Bafundzi: 33 Zuba ka-10, uwele ema-33.</p>	$43 - 12 =$ 
<p>Thishela: Kusamele sizube siye emuva ka-2. Ayini ema-33 nawususa 2? Bafundzi: 31 Bhala kumugcatinombolo njengoba ukhonjisiwe. Thishela: Sisuse 12 ngekususa 10 nekususa ku-2.</p> <ul style="list-style-type: none"> • Sibhala inombolo yekucala • Sihlahlela inombolo yesibili • Sizuba emashumi bese kuta emayunithi (kuzuba lokuya emuva ngobe siyasusa) • Siniketa imphendvulo <p>Thishela: Ngaloko-ke $43 - 12$ afana nema $43 - 10 - 2 = 31$. Bhala imishotinombolo njengoba ukhonjisiwe.</p>	$43 - 12 = 31$ 

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

$$62 - 12 \quad 53 - 11$$

Bafundzi kumele bachaze labakucabangako, sib. "62 - 12, ngisusa 10 ema-62 kute ngitfole ema-52, bese ngisusa ku-2, ngaloko-ke imphendvulo ngema-50."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 6

Liminiti li-1 lekukhaliphisa ingcondvo

a. Ngeta 10 (nobe ngeta imalipuli yeli-10)

Indlela lefanako yekubala njengekutsi 'ngeta 10', kodvwa ngalesikhatsi thishela uniketa inkinga 'ngeta 10'.

$$\text{Thishela: } 16 + 10 \rightarrow \text{Bafundzi: } 26$$

$$\text{Thishela: } 84 + 10 \rightarrow \text{Bafundzi: } 94$$

$$\text{Thishela: } 96 + 10 \rightarrow \text{Bafundzi: } 106 \qquad \qquad \qquad \text{njalo njalo...}$$

b. Susa 10 (nobe susa imalipuli ye-10)

Indlela lefanako yekubala njengekutsi 'nciphisa nge-10', kodvwa ngalesikhatsi thishela uniketa inkinga 'susa 10'.

$$\text{Thishela: } 56 - 10 \rightarrow \text{Bafundzi: } 46$$

$$\text{Thishela: } 84 - 10 \rightarrow \text{Bafundzi: } 74$$

$$\text{Thishela: } 95 - 10 \rightarrow \text{Bafundzi: } 85 \qquad \qquad \qquad \text{njalo njalo...}$$

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa emasu ekuzuba kute sisombulule tibalo tekususa.

<p>Cela bafundzi kutsi bakhumbule kwayitolo: Sisombulule njani 43 – 12?</p> <p>Niketa bafundzi litfuba lekuchaza indlela yekubala kulona lahleti naye, bese ubuta lipheya linye kutsi ikukhombise ebhodini. Khumbuta bafundzi ngetindlela labatifundze ngemuva: bhala, hlahlela, zuba (uye emuva) bese uyaphendvula.</p> <p>Khombisa ebhodini kutsi sisombulula njani: 57 – 24 Bhala '57' kumugatinombolo. Hlahlela ema-24 abe nge-20 na-4. Zuba uye emuva nge-20 bese uya emuva futsi ngaku-4. Labanye bafundzi batawuzuba baye embili kibili nge-10 esikhundleni sekuzuba nge-20 kanye – loku kulungile. Bhala imphendvulo. Thishela: Ngaloko-ke 57 – 24 ufana nekutsi 57 – 20 – 4 = 33. Bhala umushotinombolo njengobe ukhonjisiwe.</p>	<p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $43 - 12 = 31$ $\begin{array}{ccc} & 10 & \\ & \swarrow & \searrow \\ -2 & & -10 \end{array}$ <p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> $57 - 24 = 33$ $\begin{array}{ccc} & 20 & \\ & \swarrow & \searrow \\ -4 & & -20 \end{array}$
--	---

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*: 95 – 23

43 – 22

Emasu ekuzuba

Bafundzi kumele bachaze labakucabangako, sib., “95 – 23, ngisusa ema-20 kuma-95 kute ngitfole ema-75, bese ngisusa 3, ngaloko-ke imphendvulo ngema-72.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Bafundzi labahluleka kwenta loku ngenhloko bangadvweba imigcatinombolo letobasita.

Ividiyo yekusita

Emasu ekuzuba 6



<https://youtu.be/JQq2zL6pwCM>

Emasu ekuzuba

Ividiyo yekusita

Emasu ekuzuba 7



<https://youtu.be/uFGzuToKGkA>

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 7

Liminiti li-1 lekukhaliphisa ingcondvo

Kuzubela kumaltipuli yelishumi **ngembi**

Loku akusiko kusondzeta eshumini lelisedvute kodvwa kuzubela kumaltipuli yelishumi **ngembili kwemugcatinombolo**.

“Nginikete imaltipuli yelishumi leta **ngembi...**”

$$\begin{array}{ll} \text{Thishela: 26} & \rightarrow \quad \text{Bafundzi: 20} \\ \text{Thishela: 53} & \rightarrow \quad \text{Bafundzi: 50} \end{array} \quad \text{njalo njalo...}$$

Kulandzelana kwemsebenti

Kulesifundvo singeta emasu ekuzuba lafaka phakatsi sinyatselo sekndlulela eshumini.

<p>Khombisa ebhodini kutsi ungandlulela njani eshumini nawusombulula: 62 – 17</p> <p>Bhala ‘62’ kumugcatinombolo longanalutfo.</p> <p>Hlahlela 17 libe li-10 ne-7.</p> <p>Zuba uye emuva nge-10 uyofika ema-52.</p> <p>Zuba uye emuva nge-7 lesele ngekuwela ngembi kwemaltipuli ye-10 (lawa ngema-50).</p> <p>Ngaloko-ke le-7 kumele sihlahlelwe sibe ngu-2 ne-5.</p> <p>Zuba uye emuva nga-2 ne-5.</p> <p>Bhala imphendvulo.</p>	<p>Siphetfo, sitfombe lesigcwele sikhonjiswe ngentasi:</p> <p>:</p> <p>The diagram illustrates the subtraction 62 - 17 = 45. On the left, a horizontal number line shows the numbers 45, 50, 52, and 62. Above the line, three arrows point from 62 to 45, labeled with the values -5, -2, and -10 respectively. To the right of the number line, there is a tree diagram showing the decomposition of 62 - 17 into 62 - 10 - 7. The root node is 62, which branches into 10 and 7. Node 10 branches into 2 and 5, which further branches into 2 and 5 respectively.</p>
<p>Thishela: Ngaloko 62 – 17 ufana nekutsi: $62 - 10 - 7 = 45$ or $62 - 10 - 2 - 5 = 45$</p>	$62 - 10 - 7 = 45$ $62 - 10 - 2 - 5 = 45$

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenholoko*:

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

Bafundzi kumele bachaze labakucabangako, sib. “75 – 18, ngisusa 10 ema-75 kute ngitfole ema-65, bese ngisusa 5 kute ngitfole ema-60, bese ususa 3, ngaloko-ke imphendvulo ngema-57”.

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Nangabe kunebafundzi labacedza lemisebenti ngekusheshisa, banikete umsebenti longetiwe wekutilolonga:

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

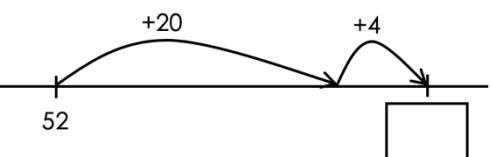
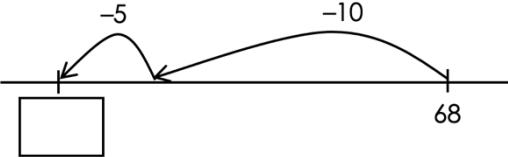
Umsebenti wekuya nawo ekhaya – Liphepha lekusebentela 2

Niketa bafundzi Liphepha lekusebentela 2 ekupheleni kwaseshini yanamuhla.

Ungabakaleli nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti labawufundzile wetenhloko.

Ligama:

Emasu ekuzuba: Liphepha lekusebentela 2

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

Emasu ekuzuba

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu lahlukene. Ungabuye wente emanotsi anobe ngabe ngukuphi lofuna kukundlulisa ngembi kwekucala sifundvo lesilandzelako.

Emasu ekuzuba

Ividiyo yekusita

Emasu ekuzuba 8



<https://youtu.be/BHC9jDIUdRI>

EMASU EKUZUBA: KWEKUCALISA SIFUNDVO 8

Liminiti li-1 lekukhaliphisa ingcondvo

- Kuzubla siye kumaltipuli ye-10 **ngembi**
- Susa emamaltipuli e-10

Kulandzelana kwemsebenti

Kulesifundvo, sisebentisa emasu ekuzuba kute sisombulule tinkinga tetinombolo letingekho.

Inkinga: $84 - \square = 61$

Bhala '84' kumugcatinombolo.

Thishela: Kumele sizube siye emuva ema-61.

Bekisa '61' kumugcatinombolo.

Thishela: Kungaki kuzuba kwemashumi nekwemayunithi lekumele sikhente?

Bafundzi: Susa ema-20 kute sifike ema-64 bese ususa 3 kute ufile ema-61

Dvweba lokuzuba kumugcatinombolo.

Babute: Sizube kangakanani nasiya emuva?

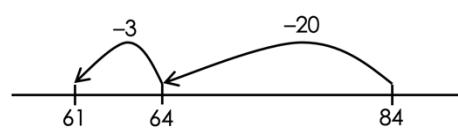
Umfundzi: 23

Bhala imphendvulo ebhlokini.

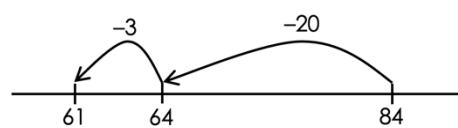
Thishela: Ngaloko-ke $84 - 20 - 3$ afana ne $84 - 23 = 61$

Bhala umushotinombolo njengoba ukhonjisiwe.

$84 - \square = 61$



$84 - \boxed{23} = 61$



Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. "75 - □ = 62, ngisusa 10 kute ngitfole ema-65, bese ngisusa 3 kute ngitfole ema-62, ngaloko-ke kuzuba sekuhlangene 13."

Tjela bafundzi kutsi BANGABALI ngabo-1.

Nangabe labanye bafundzi bacedza lemisebenti ngekusheshisa, banikete umsebenti longetiwe wekutilolonga:

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

Ligama:

Emasu ekuzuba: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-2 alelikhasi

1. Gcwalisa inombolo lengekho.
12, 22, 32, 42,

2. Gcwalisa inombolo lengekho
79, 69, 59, 49,

3. $6 + 30 = \boxed{\quad}$

4. $57 - 10 = \boxed{\quad}$

5.
7 17

6.
23 33

7.
54 44

8. $37 + \boxed{\quad} = 40$

9.
71 31

10. $31 - 20 = \boxed{\quad}$

II. Iyini imal tipuli ye-10 lelandzelako?

47 57

12.
10 58

13.
34 54

14. $16 + 30 = \boxed{\quad}$
Iyini imal tipuli ye-10 ngembi kwema-48?

15.
48 18

16. $79 - 40 = \boxed{\quad}$

17. $38 - \boxed{\quad} = 18$

18. $\boxed{\quad} - 20 = 64$

19. $37 + \boxed{\quad} = 77$

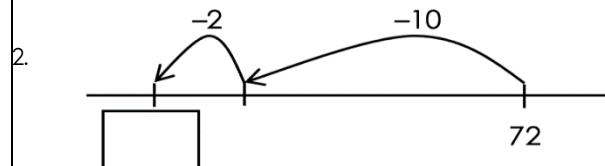
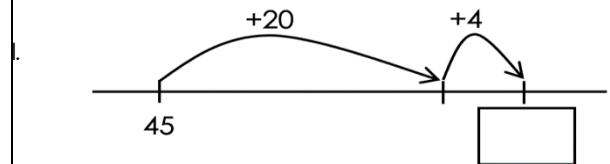
20. $\boxed{\quad} + 20 = 66$

Samba: 20

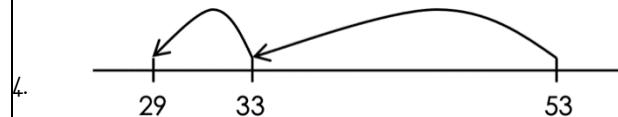
Emasu ekuzuba: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi



$$45 + [] + 7 = 82$$



$$53 - [] - 4 = 29$$

5. $57 + 26 = []$

6. $83 - 24 = []$

7. $19 + [] = 41$

8. $52 - [] = 37$

9. $61 - 32 = 61 - [] - 2$

10. $74 - [] = 74 - 20 - 5$

Samba: 10

KUPHINDZA KABILI NEKUHHAFULA

Singeniso

Injongo yalokwekucalisa sifundvo lokutsatfu lokusekucaleni kukhumbula kuphindza kibili kuye ekuphindzeni kibili kwe-10 nemahhafu etinombolo letihlukaniseka ngakubili kuye ema-20. Sichumanisa lokukhumbula nelulwimi nenkhomba yekumeleka kwekuphindza kibili/emahhafu. Kulokwekucalisa sifundvo lokusihlanu lokulandzelako, injongo kusebentisa lokhunjulwako lokuliciniso kute sibale ngenhloko kuphindza kibili nekuhhafula tinombolo letinkhudlwana. Leminye yalemisebenti iholwa nguthishela ebhodini kantsi leminye yekutsi bafundzi bayente ngekukhululeka.

Emakhono ekukhumbula usheshisa

Kunemakhono ekukhumbula usheshisa lamatsatfu bafundzi labawadzingako kute bafundze kuphindza kibili nekuhhafula:

- kuphindza kibili kuye ekuphindzeni kibili 10 (sib.4 aphindvwe kibili 8 nobe 7 aphindvwe kibili 14);
- emahhafu etinombolo letihlukaniseka ngakubili kuye e-20 (sib. 3 yihhafu ye-6 nobe 9 yihhafu ye-18);
- kuphindza kibili nemahhafu etinombolo ‘letinebungani’ (sib. 30 aphindvwe kibili ngema-60 nobe ihhafu yema-50 ngema-25 nobe ema-200 aphindvwe kibili ngema-400).

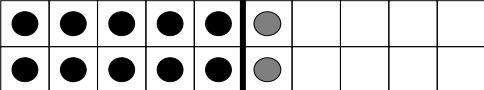
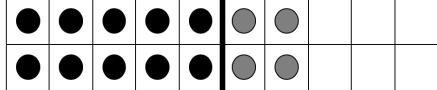
Kuphindza kibili nekuhhafula

Ligama:

Kuphindza kibili nekuhhafula: Ngembi kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelkhasi

 $6 + 6 = \boxed{\quad}$	$15 + 15 = \boxed{\quad}$			
$ihhafu ye-12 = \boxed{\quad}$	$7 \times 2 = \boxed{\quad}$			
$9 + 9 = \boxed{\quad}$	$ihhafu ye- \boxed{\quad} = 7$			
$8 siphindvwe kibili = \boxed{\quad}$	$100 liphindvwe kibili = \boxed{\quad}$			
$\boxed{\quad} \times 2 = 12$	$20 aphindvwe kibili = \boxed{\quad}$			
<table border="1" style="width: 100px; height: 50px;"> <tr> <td style="text-align: center;">16</td> </tr> <tr> <td style="text-align: center;">8</td> <td style="text-align: center;"><input type="text"/></td> </tr> </table>	16	8	<input type="text"/>	$ihhafu ye- \boxed{\quad} = 40$
16				
8	<input type="text"/>			
$10 aphindvwe kibili = \boxed{\quad}$	$ihhafu yema-50 = \boxed{\quad}$			
 $ihhafu ye-14 = \boxed{\quad}$	$16 \div 2 = \boxed{\quad}$			
$10 \div 2 = \boxed{\quad}$	$ihhafu yema-30 = \boxed{\quad}$			
$ihhafu ye-18 = \boxed{\quad}$	$2 \times 60 = \boxed{\quad}$			
Samba: 20				

Kuphindza kibili nekuhhafula: Ngembi kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1. $42 \text{ aphindvwe kibili} = \boxed{}$

2. $36 \times 2 = \boxed{}$

3. $64 \div 2 = \boxed{}$

4. $\text{ihhaf u ye-}102 = \boxed{}$

5. $47 \text{ aphindvwe kibili} = \boxed{}$

6. $\text{ihhaf u yema-}38 = \boxed{}$

7. $\text{ihhaf u yema-} \boxed{} = 52$

39 aphindvwe kibili ngema-78

8. $\text{ihhaf u yema-}78 \text{ nge } \boxed{}$

9. $39 + 38 = \boxed{}$

10. $39 \text{ aphindvwe kibili} = 40 + 40 - \boxed{}$

Samba: 10

Kuphindza kibili nekuhhafula

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 1

Liminiti li-1 lekukhaliphisa ingcondvo

‘Ngiyakukhomba, uyasho’ (liklasi lonkhe bese kuba ngumsebenti wephuya yebafundzi)

a. Thishela uniketa inombolo ‘lephindza kibili’ asebentisa iminwe yetandla totimbili, sib.



3 aphindvwe kibili 6. Nyalo ngitjele umusho lophindza kibili weminwe lengiyivetile.’

Thishela uniketa: Phindza kibili 4

Phindza kibili 1

Phindza kibili 3

Phindza kibili 5

Phindza kibili 2

Bafundzi basho umusho lofanele, sib. “4 kuphindvwe kibili 8”.

b. Bafundzi labasebenta ngemapheya bangachubekisa lomsebenti kutebakhombise 6 aphindvwe kibili – 10 liphindvwe kibili basebentisa iminwe yabo:

Thishela: Ipheya ngayinye, ngikhombise 6 aphindvwe kibili.



Emapheya ebafundzi:

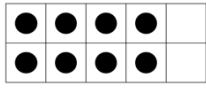
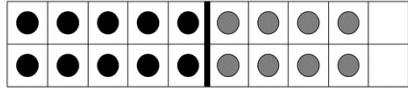
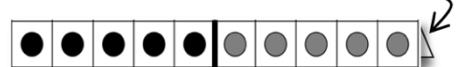
Thishela: Mingaki iminwe seyihlangene nawuphindza kibili 6?

Cela bafundzi kutsi babukanise tandla tabo futsi letandla tibe nemuno munye lovulekile. Sita bafundzi babone kutsi 12 wakhiwe tandla letimbili letinemunwe le-5 netandla letimbili letinemunwe mu-1: $5 + 5 + 1 = 11$.

Kulandzelanisa umsebenti

Kulesifundvo sisbentisa kubala lokusisekelo neliciniso uphindza kibili nekuhhafula kuye ema-20.

Inkinga: phindza kibili 6	 ↓ → Phindza kibili 6 = 12 Emagcogco lamabili e-6 li-12 Kubili kuphindzaphindvwe ka-6 li- 12 $6 \times 2 = 12$
Inkinga: ihhafu ye-12	 →

<p>Thishela: Nyalo ngibona ihhafu yemachashati la-12 futsi ungayibona ihhafu. Ngaloko-ke iyini ihhafu ye-12?</p> <p>Bafundzi: 6</p> <p>Thishela: Wati ngani kutsi imphendvulo 6?</p> <p>Lalela bafundzi labaniketa tinchazelo njengekutsi: 'ihhafu ye-12 si-6' nobe 'lishumi nakubili lihlukaniswe laba tincenye letimbili si-6' nobe 'lishumi nakubili lihlukaniselwe lababili sitfupha' nobe '$12 \div 2 = 6$'. Nangabe kute lokwentiwe ngalokufanako, khutsata liklasi kutsi liphindze lemisho emva kwakho.</p> <p>Bhala letindlela lehlukene ebhodini.</p>	<p>Ihhafu ye-12 si-6</p> <p>Lishumi nakubili lihlukaniswe laba tincenye le-2 letilinganako si-6.</p> <p>Lishumi nakubili lihlukaniselwe laba-2 si-6.</p> <p>$12 \div 2 = 6$</p> <p>(Letibonelo kumele tihlale tisebhodini.)</p>
<p>Phindza: Ngekuphindza kibili ku-4 nemakhadi emachashati laphindza kibili 9</p> <p>Ihhafu ye-8 nehhafu yema-20 yemakhadi emachashati</p> <p>Cela liklasi kutsi lisho imisho leyehlukene kute icondzanise ngakunye kuphindza kibili nemakhadi emachashati layihhaffu.</p> <p>Gcugcutela bafundzi kutsi babone tihlau (emachashati lamnyama) emakhadini lanemachashati nekubentisa loku kute batfole linani lemachashati ngekusheshisa. Ngaloko-ke ngekuphindza kibili 9 singabona ti-5 letimbili njenge-10 nabo-4 lababili njenge-8 ngaloko-ke 9 iphindvwe kibili li-18.</p>	 <p>Phindza kibili 4 nehhafu ye-8</p>  <p>Phindza kibili 9</p>  <p>Ihhafu ye-20</p>

Imisebenti yangamunye

Bafundzi kumele nyalo bazame liphepha lemsebenti wangamunye leliniketelwe Kwekulalisa sifundvo 1. Bafundzi kumele bacedzele imisho, beso bayibhala ngentasi kwesitfombe ngasinye semakhadi emachashati kuleliphepha lekusebentela.

Ividiyo yekusita

Kuphindza kibili nekuhhafula 1



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

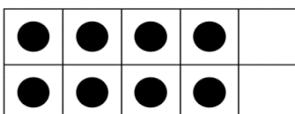
Kuphindza kibili nekuhhafula

Ligama:

Kuphindza kibili nekuhhafula Kwekulisa Sifundvo I: Umsebenti wangamunye

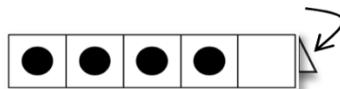
Cedzela umusho nobe bhala imisho yesitfombe ngasinye.

1. Phindza kibili 4



Aphindvwe kibili
emagcogco lamabili a si-
Kubili kuphindzaphindvwe ka si-
 x 2 =

2. Ihhafu ye-8



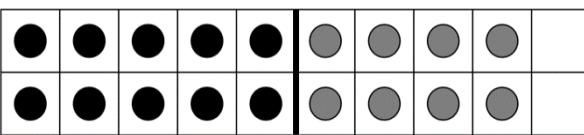
Ihhafu ya =

8 ahlukaniswe nga-2

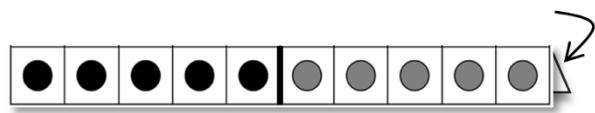
8 ahlukaniswe emkhatsini wa-2

÷ 2 =

3. Phindza kibili 9



4. Ihhafu yema-20



5. Phindza kibili

Dwweba emachashati enombolo yakho:



6. Ihhafu

Dwweba emachashati enombolo yakho:



KUPHINDZA KABILI NEKUHHAFULA: KWEKUKUCALISA SIFUNDVO 2

Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz Kuphindza kibili nemahhafu lafika eshumini

- a. Thishela utsi ‘pop’, bafundzi batsi ‘fizz’; thishela usho inombolo, bafundzi baphendvula **ngekuphindza kibili** (nobe ngeta imal tipuli ye-10 ngetulu):

Thishela: pop	→	Bafundzi: fizz
Thishela: 1	→	Bafundzi: 2
Thishela: pop	→	Bafundzi: fizz
Thishela: 5	→	Bafundzi: 10 njalo njalo...

Kuphindza kibili kuye e-10: 1 – 2; 3 – 6; 5 – 10; 4 – 8; 2 – 4.

- b. Thishela utsi ‘pop’, bafundzi batsi ‘fizz’; thishela usho inombolo, bafundzi baphendvula **ngemahhafu** (nobe kuncane ngemal tipuli ye-10):

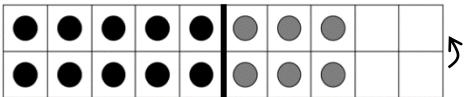
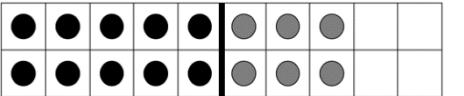
Thishela: pop	→	Bafundzi: fizz
Thishela: 8	→	Bafundzi: 4
Thishela: pop	→	Bafundzi: fizz
Thishela: 6	→	Bafundzi: 3 njalo njalo...

Emahhafu aye e-10: 10 – 5; 6 – 3; 4 – 2; 8 – 4; 2 – 1

Kulandzelanisa umsebenti

Caphela: Kulesifundvo sisebentisa kubala lokusisekelo kwemaphuzu ekuphindza kibili nekuhhafula kuye ema-20.

Note: Emakhadi lanemachashati laphindza kibili akhona ebhukwini le-Print Master.

<p>Inkinga: Hlanganisa 8 siphindvwe kibili = <input type="text"/>; ihhafu ye-16 = <input type="text"/></p> <p>Sebentisa likhadi lemachashati leliphindza kibili 8. Goca likhadi kukhombisa linye ligcogco le-8. Vula likhadi bese ukhombisa emagcogco omabili e-8.</p> <p>Thishela: Siyini si-8 siphindvwe kibili?</p> <p>Bafundzi: 16</p> <p>Bhala ebhodini ‘Phindza kibili 8 = 16’</p> <p>Thishela: Iyini ihhafu ye-16? (Khuluma ugoca likhadi kubonisa kutsi siyenta njani ihhafu ngekwenta emagcogco lamabili lalinganako.)</p> <p>Bafundzi: 8</p> <p>Bhala ebhodini ngaphasi kwemusho lophindza kibili ‘ihhafu ye 16 = 8’.</p> <p>Letibonelo kumele tihlale tisebhodini.</p>	 <p>Emachashati la-8</p> <p>↓</p>  <p>8 aphindvwe kibili = 16</p>  <p>Emachashati la-16</p> <p>↓</p>  <p>ihhafu ye 16 = 8</p>
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Kuphindza kibili nekuhhafula

Imisebenti yangamunye

Beka emakhadi emachashati ebhodini laphindza kibili 5, laphindza kibili 7 nalaphindza kibili 9. Bafundzi kumele babhale imishotinombolo yemakhadi laphindza kibili nalahhafulako.

Bafundzi kumele bagcugcutelwe kutsi bachaze labakucabangako.

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Nangabe labanye bafundzi bacedza lemisebenti ngekusheshisa, bacele kutsi babhale imishotinombolo yalalamanye emakhadi emachashati.

Ividiyo yekusita

Kuphindza nekuhhafula 2



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

Kuphindza kibili nekuhhafula

Ividiyo yekusita

Kuphindza nekuhhafula 3



https://youtu.be/L2_MyczJOyU

Kuphindza kibili nekuhhafula

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 3

Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz Kuphindza kibili nemahhafu lafika emashumini lamabili

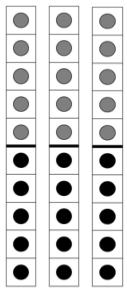
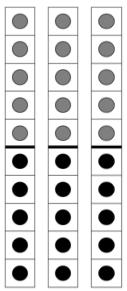
Phindza kibili uye ema-20: 1 – 2; 3 – 6; 5 – 10; 4 – 8; 2 – 4; 6 – 12; 9 – 18; 7 – 14; 8 – 16; 10 – 20.

Emahhafu aye ema-20: 10 – 5; 6 – 3; 4 – 2; 8 – 4; 2 – 1; 12 – 6; 18 – 9; 14 – 7; 16 – 8; 20 – 10.

Kulandzelana Kwemsebenti

Kulesifundvo sitiolongela emamaltipuli elishumi laphindvwe kibili.

Caphela: *Leticephu temachashati tiyatfolakala ebhukwini le-Print Master.*

Inkinga: Jomelela ku-3 kuphindvwe kibili = <input type="text"/> ; ema-30 aphindvwe kibili = <input type="text"/> Sebentisa ticephu letisitfupha temachashati la-10 bese uyatihlela kukhombisa ema-30 aphindvwe kibili. Thishela: Siyati kutsi ku-3 kuphindvwe kibili = 6, ngaloko-ke ayini ema-30 aphindvwe kibili? Bafundzi: 60 Thishela: 30 aphindvwe kibili ngema-60, ngaloko-ke iyini ihhafu yema-60? Bafundzi: 30 Bhala umushotinombolo njengobe ukhonjisiwe, bese uveta kutsi 6 nema-60 ahlangene njengaku-3 nema-30. Tjela bafundzi bakhumbule kutsi kuphindza kibili nemahhafu kuyahambisana. Thishela: Singabuye sisebentise ticephu kumelela li-10 kunekukhombisa emachashati lalishumi njalo. Khombisa bafundzi ebhodini kutsi emashumi ungaphindze uwavete njani usebentisa ticephu letindze longatidvwweba ebhodini.	3 kuphindvwe kibili = 6  30 aphindvwe kibili = 60  Ihhafu ye 60 = 30  
--	--

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

Phindza kibili 2

Phindza kibili 5

Phindza kibili 7

Phindza kibili 20

Phindza kibili 50

Phindza kibili 70

Tjela bafundzi kutsi BANGABALI ngaboku-1. Kumele basebentise kuhambisana labakufundzile kute babbale kuphindza kibili lokukhudlwana ngekusheshisa.

Nangabe labanye bafundzi bacedza lemisebenti ngekusheshisa, banikete umsebenti wekutilolonga longetiwe:

Phindza kibili 3

Phindza kibili 8

Ihhafu ya-4

Ihhafu ye-8

Phindza kibili 30

Phindza kibili 80

Ihhafu yema-40

Ihhafu yema-80

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 4

Limithi li-1 lekukhaliphisa ingcondvo

Kuphindza kibili nekuhhafula tinombolo letihlobene

Tinombolo letihlobene nguleto lekuba malula kusebenta ngato. Letinombolo tivama kuba ngemamaltipuli elishumi.

“Ayini...?”

Thishela: phindza kibili ema-30	→	Bafundzi: 60
Thishela: phindvwe kibili li-10	→	Bafundzi: 20
Thishela: phindza kibili ema-50	→	Bafundzi: 100
Thishela: ihhafu yema-40	→	Bafundzi: 20
Thishela: ihhafu yema-50	→	Bafundzi: 25
Thishela: ihhafu ye-100	→	Bafundzi: 50 njalonjalo...

Kulandzelana kwemsebenti

Kulesifundvo sitilolongela kuphindza kibili tinombolo letinemadijithi lamabili.

Caphela: Leticephu temachashati tiyatfolakala ebhukwini le-Print Master.

<p>Inkinga: Phindza kibili ema-35</p> <p>Sebentisa ticephu letisitfupha temachashati e-10 neticephu le-5 letimbili, bese uyatihlela kukhombisa 35 aphindvwe kibili.</p> <p>Thishela: Nguwuphi umushotinombolo lophindza kibili lokhonjiswe ngulomdvwebo?</p> <p>Khumbuta liklasi kutsi sicephu si-1 (kungaba ngemachashati nobe ngumugca logcinsi) kukhombisa lishumi li-1.</p> <p>Bafundzi: Phindza kibili ema-35 (nobe 35 + 35)</p> <p>Thishela: Singayitfola njani imphendvulo?</p> <p>Lalela bafundzi labakhulumu ngekubeka emashumi ndzawonye kute batfole emashumi la-6 nobe ema-60 bese babeka ndzawonye ti-5 letimbili kute batfole 10.</p> <p>Bhala lendlela ‘yekuhlahlela’ njengobe ikhonjisiwe macondzana nebhodi.</p>	<p>Phindza kibili ema-35</p> <p>NOBE</p> <p>double 35</p> <pre> graph TD A[30] --> B[60] C[5] --> B B --> D[10] D --> E[70] style E fill:none,stroke:none </pre> <p>double 35 = 70</p>
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Kuphindza kibili nekuhhafula

Inkinga: 29 x 2 Phindza indlela yekuhlahlela ema-29 aphindvwe kibili njengobe ukhonjisiwe. Khumbuta liklasi kutsi kuphindzaphindza nga-2 (nobe x2) kufana nekuphindza kibili. Vumela bafundzi kutsi bakusite ngekugcwalisa emashumi nemayunithi laphindvwe kibili. Labanye bafundzi bangatsi 29×2 ange $60 - 2 = 58$. Lendlela nayo kumele yemukelwe.	double 29 $\begin{array}{c} 20 & & 9 \\ & \swarrow & \searrow \\ & 40 & \\ & \searrow & \swarrow \\ & & 18 \end{array}$ double 29 = 58
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako:

Phindza kibili ema-41

Phindza kibili ema-36

Phindza kibili ema-47

Bafundzi kumele babhale kuhlahlela bese babala ngenhloko kuphindza kibili kwemashumi nemayunithi. Injongo kutsi bagcine bakwati kubala babuye baphendvule imibuto ngenhloko.

Bafundzi kumele bachaze labakucabangako. Sib. "47 aphindvwe kibili ngema-40 aphindvwe kibili (loko ngema-80) ne-7 siphindvwe kibili (li-14). 80 ne 14 sitfola 80, 90, 94."

Tjela bafundzi kutsi BANGABALI ngabo-1.

Umsebenti wekuya nawo ekhaya – Liphepha lekusebentela1

Niketa bafundzi Liphepha lekusebentela 1 ekugcineni kwseshini yanamuhla.

Ungabakaleli sikhatsi bafundzi nabenta lomsebenti. Injongo kuniketa bafundzi litfuba lekutilolonga ngekubhala leminye imisebenti yetenhloko lebayifundzile.

Ividiyo yekusita

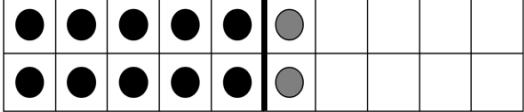
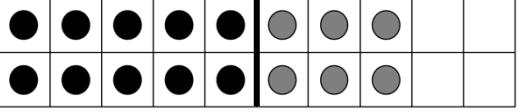
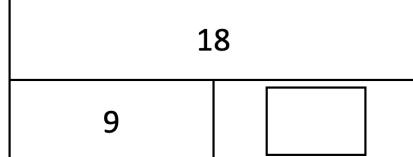
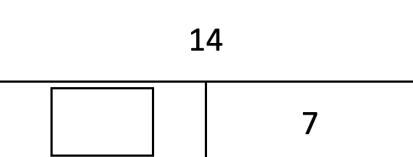
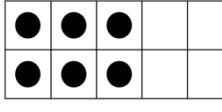
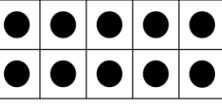
Kuphindza nekuhhafula 4



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

Ligama:

Kuphindza kibili nekuhhafula: Liphepha lekusebentela I

I.		$6 + 6 =$ <input type="text"/>	II.		$8 + 8 =$ <input type="text"/>
2.	$Ihhafu ye-12 =$ <input type="text"/>		12.	$11 \times 2 =$ <input type="text"/>	
3.	$9 + 9 =$ <input type="text"/>		13.	$Ihhafu ye$ <input type="text"/> $= 8$	
4.	7 siphindvwe kibili = <input type="text"/>		14.	30 aphindvwe kibili = <input type="text"/>	
5.	<input type="text"/> $\times 2 = 16$		15.	50 aphindvwe kibili = <input type="text"/>	
6.			16.		
7.	10 liphindvwe kibili = <input type="text"/>		17.	$Ihhafu yema-40 =$ <input type="text"/>	
8.		$Ihhafu ye-6 =$ <input type="text"/>	18.		$Ihhafu ye-10 =$ <input type="text"/>
9.	$12 \div 2 =$ <input type="text"/>		19.	$Ihhafu yema-70 =$ <input type="text"/>	
10.	$Ihhafu ye-14 =$ <input type="text"/>		20.	$2 \times 70 =$ <input type="text"/>	

Kuphindza kabili nekuhhafula

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu lahlukene. Ungabuye wente emanotsi anobe ngabe ngukuphi lofuna kukundlulisa tikwekucalisa sifundvo lesilandzelako.

Kuphindza kibili nekuhhafula

Ividiyo yekusita

Kuphindza nekuhhafula 5



<https://youtu.be/t2jBnZHnn1Y>

Kuphindza kibili nekuhhafula

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 5

Liminiti li-1 lekukhaliphisa ingcondvo

Kuphindza kibili nemahhafu etinombolo lethlobene

Kulandzelana kwemsebenti

Kulesifundvo sitiololongela kuhhafula tinombolo letinemadijithi lamabili.

<p>Inkinga: $62 \div 2$</p> <p>Khumbuta liklasi kutsi kuhlukanisa nga-2 ($\div 2$) kufana nekubala ihhafu.</p> <p>Thishela: Singayibala njani ihhafu yema-62?</p> <p>Lalela bafundzi labacoca ngekuhhafula ema-60 kute batfole ema-30 nekuhhafula 2 kute batfole ku-1, baze bafike emphendvulweni yema-31.</p> <p>Bhala lendlela ‘yekuhlahlela’ njengoba ikhonjiswe macondzana nebhodi.</p>	<p>half of 62</p> <p>half of 62 = 31</p>
<p>Inkinga: $76 \div 2$</p> <p>Phindza lendlela yekuhlahlela ihhafu yema-76 njengoba ukhonjiswe. Khumbuta liklasi kutsi kuhlukanisa nga-2 (nobe $\div 2$) kufana nekuhhafula.</p> <p>Vumela bafundzi kutsi bakusite ngekugcwalisa emahhafu emashumi newemayunithi.</p>	<p>half of 76</p> <p>half of 76 = 38</p>

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako:

$$\text{Ihhafu yema-42} \quad 68 \div 2 \quad 34 \div 2$$

Bafundzi kumele babhale kuhlahlela babuye babale ngenhloko emahhafu emashumi newemayunithi.

Bafundzi kumele bachaze labakucabangako, sib. “ $34 \div 2$ yihhafu yema-30 (li-15) nehhafu ya-4 (ku-2). 15 na-2 sitfola li-17.”

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Kuphindza kibili nekuhhafula

Ividiyo yekusita

Kuphindza nekuhhafula 6



<https://youtu.be/fxDY11LICsc>

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 6

Liminiti li-1 lekukhaliphisa ingcondvo

Kusho ngalenyen indlela:

Sebenta ngetindlela tekumelela letihlukene tekuphindza kibili nekuhhafula. Loku kungafaka phakatsi emagama lanjenge '7 siphindvwe kibili' 'nehhafu ye-16', nobe kuntitjana njenekutsi 'emagcogco lamabili e-7' nobe '7 ne-7' nobe '7 + 7' nobe '16 ÷ 2' nobe 'lishumi nesitfupha lihlukaniselwe lababili'.

Loku kungafaka phakatsi kuniketa sitfombe lesifana nalesingentasi:

9	9
18	
9 × 2 = 18	

Bafundzi kumele banikete tindlela nobe babbale '9 aphindvwe kibili = 18' sib. $9 + 9 = 18$ $18 - 9 =$ timfica letimbili takha li-18
 $9 \times 2 = 18$

Kulandzelana kwemsebenti

Kulesifundvo sisibentisa kuphindza kibili nemahhafu ngetindlela letiluchungechunge.

<p>Inkinga: Phindza kibili ema-26</p> <p>Cela bafundzi bachaze ngetindlela letehlukene kuloku labakubona kulomdvwebo.</p> <p>Sibonelo, ema-26 aphindvwe kibili afana ne 26×2 nobe 'emagcogco lamabili ema-26'. Lesinye sibonelo kutsi ema-26 laphindvwe kibili nguku-2 lokungetwe ngetulu kune kuphindza kibili ema-25 ngobe ligcogco ngalinye lingeta ku-1 ngetulu.</p> <p>Ngeta nobe ngumiphi imicondvo levetwa bafundzi kulomdvwebo.</p> <p>Labanye bafundzi banganiketa kubala kwekususa $52 - 26 = 26$. Bhala loko kulomdvwebo nangabe bakuniketile. Kuchumanisa kuhlanganisa nekususa kufundziswe njengelisu esethini yekugcina yekwekalisa sifundvo.</p>	<p>26 and 26 is □</p> <p>$52 \div 2 = \square$</p> <p>half of 52 = □</p> <p>$26 + 26 = \square$</p> <p>$26 \times \square = 52$</p>
--	--

Imisebenti yangamunye

Bafundzi kumele nyalo badvwebe i-web yetizatfu, njengalena lengenhla, lechunyaniswe:

$$43 \text{ aphindvwe kibili} = 86$$

Bafundzi kumele bachaze labakucabangako, sib. "ngiyati ema-43 nema-43 akha ema-86" nobe "ema-43 aphindvwe kibili ngema-86, ngaloko-ke, ngiyati kutsi ema-430 aphindvwe kibili akha ema-860."

Nangabe labanye bafundzi bacedza lomsebenti ngekusheshisa, bacele kutsi basungule lenye i-web yemaciniso lahamisanako bacale kunobe ngukuphi kuphindza kibili nobe kuhhafula lokuliciniso labakukhetsile.

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 7

Liminiti li-1 lekukhaliphisa ingcondvo

Kuphindza kibili nemahhafu emamaltipuli e-10, 100, 1000

“Liyini...?”

Thishela: phindza kibili 10	→	Bafundzi: 20
Thishela: phindza kibili 100	→	Bafundzi: 200
Thishela: phindza kibili 1000	→	Bafundzi: 2000
Thishela: ihhafu yema-40	→	Bafundzi: 20
Thishela: ihhafu yema-400	→	Bafundzi: 200
Thishela: ihhafu ye-4000	→	Bafundzi: 2000 njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo sitiolongela kuphindza kibili nemahhafu emamaltipuli e-10.

<p>Sibalo: 34 aphindvwe kibili → 340 aphindvwe kibili → 3400 aphindvwe kibili</p> <p>Thishela: Singabala njani kutsi ayini ema-34 laphindvwe kibili?</p> <p>Lalela bafundzi labakhulumu ngekuphindza kibili ema-30 kute batfole ema-60 nekuphindza kibili ku-4 kute batfole 8, kuze kube ngema-68.</p> <p>Nangabe bafundzi bahluleka kubala loku ngenhloko, bhala lendlela ‘yekuhlahlela’ njengoba ikhonjisiwe.</p> <p>Thishela: Singasebentisa lesikwatiko ngekuphindza kibili ema-34 kute sibale kutsi ema-340 angaba yini nakaphindvwe kibili?</p> <p>Lalela bafundzi nabatsi ema-340 makhulu ngalokuphindvwe ka-10 kunema-34 ngaloko-ke ema-340 aphindvwe kibili makhulu ngalokuphindvwe kalishumi kunema-68; loko ngema-680.</p>	<p>double 34</p> <pre> graph TD A[double 34] --> B[30] A --> C[4] B --> D[60] C --> E[8] D --- E style D fill:none,stroke:none style E fill:none,stroke:none </pre> <p>double 34 = 68</p> <p>phindza kibili 34 = 68</p> <p>phindza kibili 340 = <input type="text"/></p>
<p>Inkinga: ihhafu yema-46 → ihhafu yema-460</p> <p>Thishela: Singabala njani kutsi iyini ihhafu yema-46?</p> <p>Lalela bafundzi labakhulumu ngekuhhafula ema-40 kute batfole ema-20 nekuhhafula si-6 kute batfole ku-3, loko kwakha ema-23.</p> <p>Nangabe bafundzi bahluleka kubala loku ngenhloko, bhala lendlela ‘yekuhlahlela’ njengoba ukhonjisiwe.</p>	<p>half of 46</p> <pre> graph TD A[half of 46] --> B[40] A --> C[6] B --> D[20] C --> E[3] D --- E style D fill:none,stroke:none style E fill:none,stroke:none </pre> <p>half of 46 = 23</p>

Kuphindza kibili nekuhhafula

Thishela: Singakusebentisa lesikwatiko ngehhafu yema-46 kute sitfole kutsi iyini ihhafu yema-460?	ihhafu yema-46 = 23 ihhafu yema-460 = <input type="text"/>
Lalela bafundzi labatsi ema-460 makhudlwana ngalokuphindvwe kalishumi kunema-46 ngaloko-ke ihhafu yema-460 loko li-10 liphindzaphindvwe ngema-23 = 230.	

Imisebenti yangamunye

Bafundzi nyalo kumele badvwebe i-web yetizatfu, njengalena lengenhla, ichumene neku-phindza kibili 45 phindza kibili 27 phindza kibili 82 phindza kibili 76 450 aphindvwe kibili 270 aphindvwe kibili 820 aphindvwe kibili 760 aphindvwe kibili Gcugcutela bafundzi kutsi babale kuphindza kibili kwekucala ngenhloko nangabe bakhona nekusebentisa iphethini kute baphendvule kulandzelana kwekuphindza kibili/nemahhafu ngekusheshisa.

Umsebenti wekuya nawo ekhaya – Liphepha lekusebentela 2

Niketa bafundzi Liphepha lekusebentela 2 ekugcineni kwseshini sanamuhla.

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wetenhloko labawufundzile.

Ividiyo yekusita

Kuphindza kibili nekuhhafula 7



<https://youtu.be/JJUPpmMdaAw>

Ligama:

Kuphindza kibili nekuhhafula: Liphepha lekusebentela 2

I.	32 aphindvwe kibili <input type="text"/>	II.	44 aphindvwe kibili <input type="text"/>
2.	$26 \times 2 =$ <input type="text"/>	12.	$38 \times 2 =$ <input type="text"/>
3.	$42 \div 2 =$ <input type="text"/>	13.	$86 \div 2 =$ <input type="text"/>
4.	Ihhafu ye-110 = <input type="text"/>	14.	Ihhafu ye-104 = <input type="text"/>
5.	23 aphindvwe kibili = <input type="text"/>	15.	39 aphindvwe kibili = <input type="text"/>
6.	Ihhafu yema-36 = <input type="text"/>	16.	Ihhafu yema-48 = <input type="text"/>
31 aphindvwe kibili ngema-62		49 aphindvwe kibili ngema-98	
7.	$2 \times 31 =$ <input type="text"/>	17.	$2 \times 49 =$ <input type="text"/>
8.	Ihhafu yema-62 nge <input type="text"/>	18.	Ihhafu yema-98 nge <input type="text"/>
9.	$31 + 32 =$ <input type="text"/>	19.	$49 + 48 =$ <input type="text"/>
10.	31 aphindvwe kibili = $30 + 30 +$ <input type="text"/>	20.	49 aphindvwe kibili = $50 + 50 -$ <input type="text"/>

Kuphindza kibili nekuhhafula

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngendlela yekuwelela eshumini. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa ngembi kwekucala sifundvo lesilandzelako.

Kuphindza kibili nekuhhafula

Ividiyo yekusita

Kuphindza nekuhhafula 8



https://youtu.be/_qp_silzqLw

KUPHINDZA KABILI NEKUHHAFULA: KWEKUCALISA SIFUNDVO 8

Liminiti li-1 lekukhaliphisa ingcondvo

Kuphindza kibili nemahhafu etinombolo lethlobene

Kulandzelana kwemsebenti

Kulesifundvo sakha tizatfu letihlobene tetinombolo lotinikiwe letiphindza kibili nobe tizatfu temahhafu, letifaka ekhatsi kusondzela ekuphindzeni kibili.

<p>Inkinga: Phindza kabil 17</p> <p>Buta bafundzi ngetindlela letehlukene tekusho loku labakubona kulomdvwebo.</p> <p>Sibonelo, $17 + 18$ kumele libe ngetulu nga-1 kune $17 + 17$. Lesinye sibonelo ngukutsi li-17 liphindvwe kibili likhulu nga-2 ngetulu kunekuphindza kibili li-16 ngobe ligcogco ngalinye linaku-1 kulo.</p> <p>Ngeta nobe ngumiphi imicondvo levetwa bafundzi kulomdvwebo.</p> <p>Labanye bafundzi banganiketa kubala kwekususa $34 - 17 = 17$. Bhala loku kulomdvwebo nangabe bakuniketile. Kuchumanisa kuhlanganisa nekususa kufundziswa njengelisu esethini yekwekucalisa sifundvo yekugcina.</p>	<p>double 17 = double 16 + \square double 170 = \square half of 34 = \square double 17 = 34 17 + 18 = \square 17 + 16 = \square</p>
---	---

Imisebenti yangamunye

1. Bafundzi kumele nyalo bavete i-web yemaphuzu, njengalawa langetulu, achunyaniswe neku-:

$$\text{phindza kibili ema } 38 = 76$$

Sibonelo, '38 + 38 = 76' nobe 'ihhafu yema-760 = 380' nobe 'ihhafu yehhafu yema-76 = 19'

Bafundzi kumele bachaze labakucabangako, sib. "ikota yema-76 li-19 ngoba ngihhafulile ngaphindza ngahhafula futsi".

Tjela bafundzi kutsi BANGABALI ngaboku-1.

2. Bafundzi kumele bazame kuphendvula lemibuto:

$$\text{Kuyini kuphindza kibili ema-99?}$$

$$\text{Cedzela lomusho: kuphindza kibili ema-99} = \text{kuphindza kibili li-100} - \square$$

$$\text{Kuyini kuphindza kibili ema-49?}$$

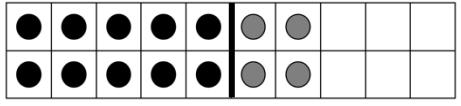
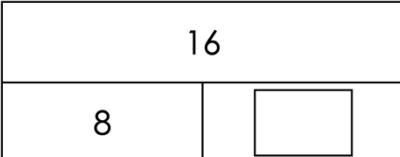
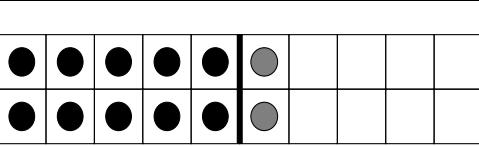
Nangabe kunebafundzi labacedza lemisebenti ngekusheshisa, bacele kutsi bacambe lenye i-web yetizatfu letichumene bacale nganobe ngutiphi tizatfu tekuphindza kibili nobe kuhhafula labatikhetsile:

Ligama:

Kuphindza kibili nekuhhafula: Ngemuva kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

 $7 + 7 = \boxed{}$	$14 + 14 = \boxed{}$
$14 - 7 = \boxed{}$	$7 \times 2 = \boxed{}$
$9 + 9 = \boxed{}$	$ihhafu-ye \boxed{} = 7$
$8 \text{ siphindvwe kibili} = \boxed{}$	$100 \text{ liphindvwe kibili} = \boxed{}$
$\boxed{} \times 2 = 14$	$20 \text{ aphindvwe kibili} = \boxed{}$
	$ihhafu ye \boxed{} = 40$
$10 \text{ liphindvwe kibili} = \boxed{}$	$ihhafu yema-50 = \boxed{}$
 $ihhafu ye-12 = \boxed{}$	$18 \div 2 = \boxed{}$
$10 \div 2 = \boxed{}$	$ihhafu yema-30 = \boxed{}$
$ihhafu ye-18 = \boxed{}$	$2 \times 60 = \boxed{}$
Samba: 20	

Kuphindza kibili nekuhhafula: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1.	$42 \text{ aphindvwe kibili} =$	<input type="text"/>
2.	$36 \times 2 =$	<input type="text"/>
3.	$64 \div 2 =$	<input type="text"/>
4.	$\text{ihhafu ye}-102 =$	<input type="text"/>
5.	$99 \text{ aphindvwe kibili} =$	<input type="text"/>
6.	$\text{ihhafu yema}-38 =$	<input type="text"/>
7.	$\text{ihhafu ye } \boxed{} = 52$	
39 aphindvwe kibili ngema-78		
8.	$\text{ihhafu yema}-78 \text{ nge } \boxed{}$	
9.	$39 + 38 =$	<input type="text"/>
10.	$39 \text{ aphindvwe kibili} = 40 + 40 -$	<input type="text"/>
Samba: 10		

KUSONDZETA NEKULUNGISA

Singeniso

Injongo kuletifundvo letintsatfu tekucala kuhlanganisa usebentisa kusondzeta kulenombolo lehlobene nekulungisa. Kulokwekucalisa sifundvo lokutsatfu lokulandzelako, injongo kususa usebentisa kusondzeta nekulungisa. Lokwekucalisa sifundvo lokubili kwekugcina kucondze kubala lapho tinombolo lettingetulu kwayinye tingasondzetwa kulenombolo lehlobene. Tinombolo letihlobene nguleto lekumalula kusebenta ngato. Esikhatsini lesinyenti ngemamaltipuli elishumi. Leminye yalemisebenti iholwa embili nguthishela ebhodini kantsi leminye yekutsi bafundzi bayente ngekukhululeka.

Emakhono ekukhumbula uphangisa

Kunemakhono ekukhumbula uphangisa lasitfupha lekumele bafundzi bakwati kufundza emasu ekusondzeta nekulungisa:

- bala uchubekele phambili nobe emuva nge-10 kusukela kunobe nguyiphi inombolo (sib. 12, 22, 32, nobe 57, 47, 37, ...)
- ngeta nobe susa 1, 2 na-3 kunobe nguyiphi inombolo lendlulela nobe lengandlulelli eshumini (sib. $49 + 1 = 50$ nobe $30 - 2 = 28$; $49 + 2 = 51$ nobe $52 - 3 = 49$).
- ngeta imaltipuli yelishumi kunobe nguyiphi inombolo (sib. $61 + 20 = 81$)
- susa imaltipuli yelishumi kunobe nguyiphi inombolo (sib. $46 - 30 = 16$)
- kwati imaltipuli yelishumi ledvute kakhulu (sib. 47 udvute kakhulu nema-50; 39 udvute kakhulu nema-40)
- kwati kufika kumaltipuli ye-10 lesedvute (sib. 43 ukhashane nga-3 nawusuka ema-40; 19 ukhashane ngaku-1 nawusuka ema-20).

Kusondzeta nekulungisa

<p>Ligama:</p> <p>Kusondzeta nekulungisa: Ngembi kwesivivinyo</p> <p>INCENYE YEKUCALA</p> <p>Emaminithi lama-2 alelikhasi</p>			
1.	$23 + 30 = \boxed{}$	11.	$69 + 2 = \boxed{}$
2.	$42 - 3 = \boxed{}$	12.	$68 + 10 = \boxed{}$
3.	$57 - 10 = \boxed{}$	13.	$38 + 3 = \boxed{}$
4.	$51 - 2 = \boxed{}$	14.	$145 + 30 = \boxed{}$
5.	$137 - 20 = \boxed{}$	15.	$97 - 60 = \boxed{}$
6.	$43 + 40 = \boxed{}$	16.	$48 = \boxed{} - 2$
7.	$29 = \boxed{} - 1$	17.	$49 + \boxed{} = 50$
8.	$67 + \boxed{} = 70$	18.	$50 \text{ aphindvwe kibili} = \boxed{}$
9.	$97 = 100 - \boxed{}$	19.	$100 \text{ Laphindvwe kibili} = \boxed{}$
10.	$88 + \boxed{} = 90$	20.	$28 + \boxed{} = 30$
<p>Samba: 20</p>			

Kusondzeta nekulungisa: Ngembi kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1.	$34 + 29 = \boxed{}$
2.	$64 - 19 = \boxed{}$
3.	$27 + 98 = \boxed{}$
4.	$234 - 99 = \boxed{}$
5.	$97 + 98 + 99 = \boxed{}$
6.	$68 + \boxed{} = 68 + 10 - 1$
7.	$67 - 18 = 67 - 20 + \boxed{}$
8.	$56 + 28 = 56 + \boxed{} - 2$
9.	$84 - 39 = 84 - \boxed{} + 1$
10.	Biyela umushotinombolo lonemphendvulo lefana nale: $80 - 59$ $80 + 60 - 1$ $80 - 60 + 1$ $80 - 60 - 1$ $80 + 60 + 1$
Samba: 10	

Kusondzeta nekulungisa

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 1

Liminithi li-1 lekukhaliphisa ingcondvo

a. Tungeleta likamelo ukhulise nge-10

Thishela usho inombolo bese bafundzi baphendvula ngekutungeleta likamelo bakhulise nge-10 ngetulu kunenombolo yekugcina.

Thishela: 16

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

b. Ngeta emamaltipuli e-10

“Ayini...?”

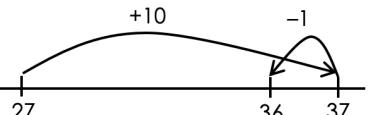
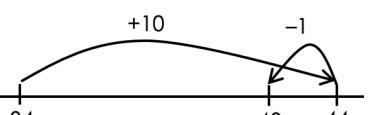
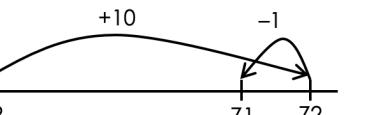
Thishela: 43 + 20 → Bafundzi: 63

Thishela: 35 + 20 → Bafundzi: 55

Thishela: 42 + 30 → Bafundzi: 72 nialo nialo...

Kulandzelana kwemsebenti

Kulesifundvo setfula lisu lekusondzeta nekulungisa.

<p>Cela bafundzi kutsi bakunikete timphendvulo temisebenti lesebhodini (tikulu hlu lolusekudla) bese ubuta bafundzi labakunakako.</p> <p>Thishela: Unaka ini?</p> <p>Bafundzi: Kungeta 9 kukuniketa imphendvulo lefana ne-10 linciphe ngaku-1.</p>	<p>Bhala ebhodini:</p> $27 + 9 =$ $27 + 10 =$ $34 + 9 =$ $34 + 10 =$ $62 + 9 =$ $62 + 10 =$
<p>Thishela: Tinombolo letihlobene nguleto lekumalula kusebenta ngato. Lishumi yinombolo lehlobene. Kulelisu, nasingeta 9, sisondzeta inombolo 9 e-10. Senta loku ngobe isondzele e-10 kantsi li-10 liyinombolo lehlobene ngaloko-ke kumelula kungeta.</p> <p>Ngako singeta li-10 bese silungisa imphendvulo yetfu ngekususa ku-1 lesimngete nasilungisa.</p> <p>Khombisa $27 + 9$; $34 + 9$ nema $62 + 9$ ngemishotinombolo ebhodini.</p> <p>Thishela: Lelisu sitsi Kusondzeta nekulungisa.</p> <p>Cela bafundzi kutsi basho kuvakale lamagama kusondzeta nekulungisa bese bayawakhomba ebhodini.</p>	<p>$27 + 9$</p>  <p>$34 + 9$</p>  <p>$62 + 9$</p>  <p>Bhala ebhodini: Kusondzeta nekulungisa</p>

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhlоко*:

$$33 + 9 \quad 48 + 9 \quad 76 + 9 \quad 84 + 9$$

Bafundzi kumele bachaze labakucabangako, sib. "33 + 9, ngisondzeta 9 e-10 bese ngingeta li-10 ema-33 kute ngitfole ema-43; ngase ngilungisa imphendvulo ngekususa ku-1, ngaloko-ke imphendvulo ngema-42."

Nawusaphindza tindlela tekubala tebafundzi 'gcizelela' lapho bebasondzeta nalapho bebalungisa khona.

Ividiyo yekusita

Kusondzeta nekulungisa 1



<https://youtu.be/jpwwvujeipl>

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 2

Liminiti li-1 lekukhaliphisa ingcondvo

a. Pop-Fizz: Imalitipuli ye-10 ledvute

Thishela utsi ‘pop’ bese bafundzi batsi ‘fizz’; ngako thishela usho inombolo, bese bafundzi baphendvula ngalenyen inombolo.

Kulokuhumusha, bafundzi kumele baphendvule ngemalitipuli yelishumi lelisedvute.

Thishela: pop	→	Bafundzi: fizz
Thishela: 18	→	Bafundzi: 20
Thishela: pop	→	Bafundzi: fizz
Thishela: 37	→	Bafundzi: 40
Thishela: pop	→	Bafundzi: fizz
Thishela: 42	→	Bafundzi: 40
Thishela: pop	→	Bafundzi: fizz
Thishela: 33	→	Bafundzi: 30 njalo njalo...

b. Pop-Fizz: Sizuba njani siye kumalitipuli ye-10 lelidvute

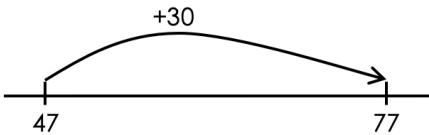
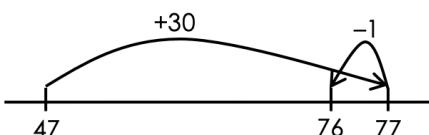
Ngalesikhatsi bafundzi basho lokumele kwenteke kute bafike kumalitipuli yelishumi lelidvute

Thishela: 7	→	Bafundzi: +3
Thishela: 28	→	Bafundzi: +2
Thishela: 19	→	Bafundzi: +1
Thishela: 43	→	Bafundzi: -3
Thishela: 32	→	Bafundzi: -2
Thishela: 11	→	Bafundzi: -1 njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo setfula lisu lekusondzeta nekulungisa nangabe sihlanganisa

Buta bafundzi loko labakukhumbulako ngelisu lekubala ukuzuba.	Umsebenti logcinile ebhodini ukhonjiswe ngentasi:
Thishela: Ngalesikhatsi sisebentisa lisu lekubala uzuba, siwabale njani ema $47 + 29$?	$47 + 29 = 76$
Vumela bafundzi kutsi bachaze indlela yekubala bese ucela umfundzi kutsi akukhombise ebhodini. Khumbuta bafundzi ngetinyatselo: bhala , hlahlela , zuba bese uyaphendvula .	
Bafundzi: Hlanganisa ema-20 ku-47 kute utfole 67, bese ungeta 3 kute utfole ema-70, uphindze ungete 6 ($3 + 6 = 9$).	
Thishela: Advute nayiphi inombolo lehlobene ema-29? Bafundzi: 30	47 + 29

<p>Thishela: Nangabe sisondzeta ema-29 kuma-30 siphindze sizube siye phambili kama-30 sisuka ema-47, sitawuba kuphi?</p> <p>Bafundzi: 77 (khombisa loku ebhodini)</p> <p>Thishela: Ngabe 77 yimphendvulo yekugcina nobe kumele silungise?</p> <p>Cela bafundzi kutsi bachaze lokunengcondvo nabalungisa imphendvulo: Singete kune ngetulu, ngaloko-ke kumele sisuse kune kulemhendvulo kute sitfole ema-76.</p> <p>Khombisa loku kumugcatinombolo ebhodini.</p> <p>Tjela bafundzi kutsi lendlela yekusondzeta nekulungisa iseomba kahle nangabe yinye inombolo isedvutane kakhulu nenombolo lehblobene.</p>	 <p>Ngeta kumugcatinombolo:</p> 
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Umsebenti wangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. "26 + 19, ngisondzeta li-19 ema-20 bese ngingeta ema-20 kuma-26 kute ngitfole ema-46; bese ngilungisa imphendvulo ngekususa ku-1, ngaloko-ke imphendvulo ngema-45." Nawusaphindza tindlela tekubala tebfundzi' gcizelela lapho bebasondzeta nalapho bebalungisa khona.

Ividiyo yekusita

Kusondzeta nekulungisa 2



<https://youtu.be/fGILndzXfSY>

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 3

Liminiti li-1 lekukhaliphisa ingcondvo

a. Pop-Fizz: Sizuba njani siye kumaltipuli ye-10?

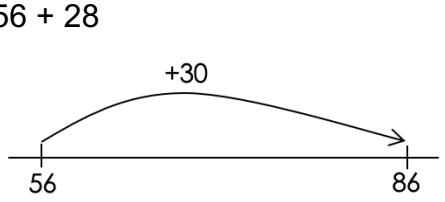
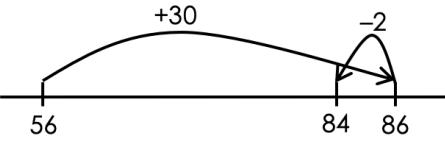
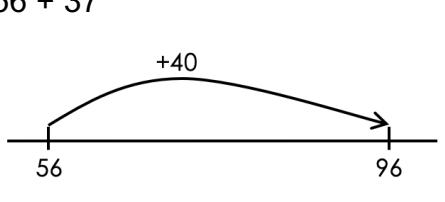
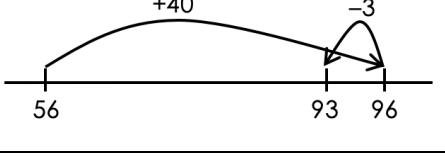
b. Kubala lokusheshisako: Susa 1, 2 nobe 3

“Ayini ...?”

Thishela: 63 – 1	→	Bafundzi: 62	
Thishela: 54 – 2	→	Bafundzi: 52	
Thishela: 78 – 1	→	Bafundzi: 77	
Thishela: 61 – 2	→	Bafundzi: 59	
Thishela: 52 – 3	→	Bafundzi: 49	njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo setfula lisu lekusondzeta nekulungisa nangabe singeta.

<p>Thishela: Nangabe singeta ema-28 nobe ema-38 nobe ema-48 kulenombolo, singalisebentisa yini lisu lekusondzeta nekulungisa? Singalisebentisa yini kusombulula 56 + 28? Nguyiphi inombolo lehlobene ema-28 ladvute nayo?</p> <p>Bafundzi: 30</p> <p>Thishela: Nangabe sisondzeta ema-28 aye kuma-30 bese sizuba siye phambili kama-30 sisuka ema-56, sitawuba kuphi?</p> <p>Bafundzi: 86</p> <p>Thishela: Singawalungisa njani ema-86?</p> <p>Cela bafundzi kutsi bachaze lokunengcondvo nabalungisa imphendvulo: Singete kubili ngetulu, ngaloko-ke kumele sisuse kubili kulempendvulo kute sitfole ema-84.</p> <p>Khombisa loku kumugcatinombolo ebhodini.</p>	 <p>56 + 28</p> <p>+30</p> <p>56 86</p> <p>Ngeta kumugcatinombolo:</p>  <p>56 84 86</p>
<p>Thishela: Nangabe singeta ema-27 nobe ema-37 nobe 47 kulenombolo, singayisebentisa yini indlela yekusondzeta nekulungisa? Singayisebentisa yini kute sisombulule 56 + 37? Nguyiphi inombolo lehlobene ema-37 lasedvute nayo?</p> <p>Bafundzi: 40</p> <p>Thishela: Nangabe sisondzeta ema-37 aye kuma-40 bese sizuba siya phambili kama-40, sitawuba kuphi?</p> <p>Bafundzi: 96</p>	 <p>56 + 37</p> <p>+40</p> <p>56 96</p> <p>Ngeta kumugcatinombolo:</p>  <p>56 93 96</p>

<p>Thishela: Singawalungisa njani ema-96?</p> <p>Cela bafundzi kutsi bachaze lokunengcondvo nabalungisa imphendvulo: Singete kutsatfu ngetulu, ngaloko-ke kumele sisuse kutsatfu kulemphendvulo kute sitfole ema-93.</p> <p>Khombisa loku kumugcatinombolo ebhodini.</p>	
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. "25 + 18, ngisondzeta li-18 liye ema-20 bese ngingeta ema-20 kuma-25 kute ngitfole ema-45; bese ngilungisa imphendvulo ngekususa 2, ngaloko-ke imphendvulo ngema-43." Nawusaphindza tindlela tekubala tebafundzi 'gcizelela lapho bebasondzeta nalapho bebalungisa khona.

Ividiyo yekusita

Kusondzeta nekulungisa 3



https://youtu.be/St5nSH_BdRE

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 4

Liminiti li-1 lekukhaliphisa ingcondvo

a. Tungeleta likamelo kunciphe nge-10

Thishela usho inombolo bese bafundzi baphendvula ngekutungeleta likamelo kunciphe nge-10 tikwenombolo yekugcina.

Thishela: 128

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

b. Susa emamaltipuli e-10

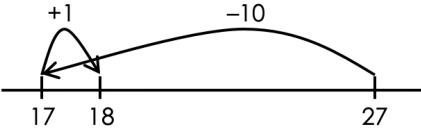
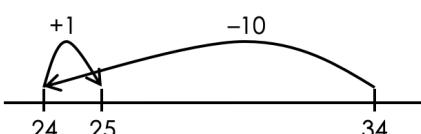
“Ayini...?”

Thishela: 71 – 20 → Bafundzi: 51

Thishela: 59 – 30 → Bafundzi: 29 njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo setfula lisu lekusondzeta nekulungisa nangabe sisusa.

<p>Thishela: Singabuye sisebentisa lisu lekusondzeta nekulungisa nangabe sisusa tinombolo letisedvute netinombolo letihlobene.</p> <p>Nasibala ema-27 siwahlanganisa ne-9, singeta li-10 bese silungisa ngekususa kunye. Singabala 27 – 9 njenge 27 – 10 bese silungisa ngekungeta ku-1 ngoba sitsetse kunye ngetulu futsi.</p>	$27 - 9 = 27 - 10$ bese ungeta ku-1 
<p>Thishela: Asente tibalo letinyenti sisebentisa indlela yekusondzeta nekulungisa nangabe sisusa 9. 34 – 9 afana nema 34 – 10 (siyasondzeta) bese sibuyela emuva singete kunye (siyalungisa).</p> <p>Dweba umugcatinombolo njengobe ukhonjisiwe.</p> <p>Thishela: Ngaloko-ke $34 - 9 = 25$.</p> <p>Bala $62 - 9$ njengesibonelo lesinye ngendlela lefanako bese ukhomba umugcatinombolo ebhodini.</p>	$34 - 9$  $62 - 9$ 

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. “23 – 9, ngisondzeta le-9 ngiye e-10 bese ngisusa 10 kuma-23 kute ngitfole 13; bese ngilungisa imphendvulo ngekungeta ku-1, ngaloko-ke imphendvulo li-14.” Nawusaphindza tindlela tekubala tebafundzi’ gcizelela lapho bebasondzeta nalapho bebalungisa khona.

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 1

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wetenhloko labawufundzile.

Niketa bafundzi Liphepha lekusebentela 1 ekugcineni kweseshini yanamuuhla.

Ividyo yekusita

Kusondzeta nekulungisa 4

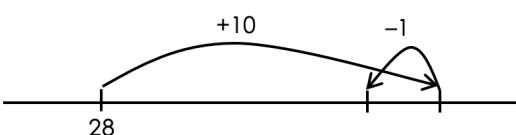
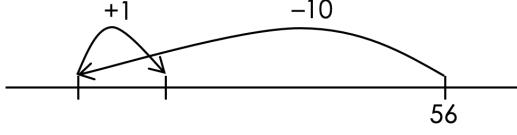


<https://youtu.be/qyCQU1S6M8w>

Kusondzeta nekulungisa

Ligama:

Kusondzeta nekulungisa: Liphepha lekusebentela I

I.	$46 + 40 = \boxed{}$	II.	$21 - 3 = \boxed{}$
2.	$57 - 10 = \boxed{}$	12.	$28 + 3 = \boxed{}$
3.	$32 - 3 = \boxed{}$	13.	$26 + 30 = \boxed{}$
4.	$71 - 2 = \boxed{}$	14.	$15 + 50 = \boxed{}$
5.	$167 - 70 = \boxed{}$	15.	$20 \text{ aphindvwe kibili} = \boxed{}$
6.	$38 = \boxed{} - 2$	16.	$19 = \boxed{} - 1$
7.	$68 + \boxed{} = 70$	17.	$32 - \boxed{} = 30$
8.	$99 = 100 - \boxed{}$	18.	$49 + \boxed{} = 50$
9.	$200 \text{ aphindvwe kibili} = \boxed{}$	19.	$27 = 30 - \boxed{}$
10.	Biyela umugcatinombolo lokhombisa $28 + 9$	20.	Biyela umugcatinombolo lokhombisa $56 - 9$
			
			

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngetindlela tekubala letihlukene. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa ngembi kwekucalisa sifundvo lesilandzelako.

Kusondzeta nekulungisa

Ividiyo yekusita

Kusondzeta nekulungisa 5



https://youtu.be/VQ8va_RuHBQ

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 5

Liminiti li-1 lekukhaliphisa ingcondvo

- Tungeleta likamelo unciphise nge-20 nange-30
- Pop-Fizz: Imalipuli ye-10 ledvute

Kulandzelana Kwemsebenti

Kulesifundvo sisebentisa lisu lekusondzeta nekulungisa nangabe sisusa.

<p>Thishela: Singalisebentisa njani lisu lekusondzeta nekulungisa kute sisombulule 47 – 29?</p> <p>Nangabe bafundzi bahluleka kuchaza lelisu, buta:</p> <p>Thishela: Nguyiphi inombolo lehlobene ema-29 ladvute nayo?</p> <p>Bafundzi: 30</p> <p>Thishela: Nangabe sisondzeta ema-29 aye ema-30 bese sizuba siya emuva ngema-30 sisuka kuma-47? Sitawuba kuphi?</p> <p>Bafundzi: 17 (khombisa loku ebhodini)</p> <p>Thishela: Ngabe li-17 yimphendvulo legcinile nobe kumele siyilungise?</p> <p>Cela bafundzi kutsi bachaze lokunengcondvo nabalungisa imphendvulo: Sisuse lomunye kunye ngetulu, ngaloko-ke kumele singete kunye kulemphendvulo kute sitfole li-18.</p> <p>Khombisa loku kumugcatinombolo ebhodini.</p> <p>Tjela bafundzi kutsi lendlela yekusondzeta nekulungisa isebenta kahle nangabe yinye inombolo idvute kakhulu nenombolo lehlobene.</p>	<p>47 – 29</p> <p>Ngeta kumushotinombolo:</p>
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

28 – 19 54 – 39

Bafundzi kumele bachaze labakucabangako, sib. “28 – 19, ngisondzete li-19 kuya ema-20 ngase ngisusa ema-20 kuma-28 kute ngitfole 8; ngibese ngilungisa imphendvulo ngekuneta ku-1, ngaloko-ke imphendvulo si-9.” Nawusaphindza tindlela tekubala tebafundzi’ gcizelela lapho bebasondzeta nalapho bebalungisa khona.

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 6

Liminithi li-1 lekukhaliphisa ingcondvo

- a. Pop-Fizz: Singazuba njani siye kumalitipuli ye-10 ledvute (khetsa tinombolo letinemayunithi 7, 8 ne-9, sib. 27 → 30; 58 → 60; 49→ 50)
 - b. Tibalo letisheshisako: Ngeta 1, 2 nobe 3

“Ayini ...?”

Thishela: 61 + 2	→	Bafundzi: 63
Thishela: 52 + 3	→	Bafundzi: 55
Thishela: 77 + 1	→	Bafundzi: 78
Thishela: 69 + 2	→	Bafundzi: 71
Thishela: 58 + 3	→	Bafundzi: 61 njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo setfula lisu lekusondzeta nekulungisa nasisusa.

<p>Thishela: Nangabe sisusa ema-28 nobe ema-38 nobe ema-48 kulenombolo, singayisebentisa yini indlela yekusondzeta nekulungisa? Singayisebentisa njani kute sisombulule 56 – 28?</p> <p>Nangabe bafundzi bahluleka kuchaza lisu, babute:</p> <p>Thishela: Nguyiphi inombolo lehlobene ema-28 ladvute nayo?</p>	 <p>56 – 28</p> <p>-30</p>
<p>Bafundzi: 30</p> <p>Thishela: Nangabe sisondzeta ema-28 aye kuma-30 bese-ke sizuba siya emuva nge-30 sisuka ema-56? Sitawuba kuphi?</p>	 <p>Ngeta kumugcatinombolo:</p> <p>+2</p> <p>-30</p>
<p>Bafundzi: 26(khombisa loku ebhodini)</p> <p>Thishela: Singawalungisa njani ema-26?</p> <p>Cela bafundzi kutsi bachaze lokunengcondvo nabalungisa imphendvulo: Sisuse kubili ngetulu, ngaloko kumele singete kubili kulemphendvulo kute sitfole ema-28.</p> <p>Khombisa loku kumugcatinombolo ebhodini.</p>	
<p>Thishela: Nangabe sisusa ema-27 nobe ema-37 nobe ema-47 kulenombolo, singayisebentisa yini indlela yekusondzeta nekulungisa? Singayisebentisa njani kute sisombulule 56 – 37?</p> <p>Nangabe bafundzi bahluleka kuchaza lisu, buta:</p> <p>Thishela: 37 advutane nayiphi inombolo lehlobene?</p>	 <p>56 – 37</p> <p>-40</p> <p>Ngeta kumugcatinombolo:</p>

Bafundzi: 40

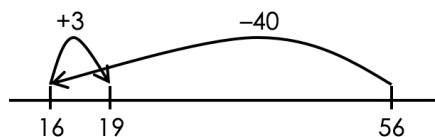
Thishela: Nangabe sisondzeta ema-37 aye kuma-40
bese sizuba siya emuva ngema-40
kusukelala kuma-56? Sitawuba kuphi?

Bafundzi: 16 (khombisa loku ebhodini)

Thishela: Singalilungisa njani 16?

Cela bafundzi kutsi bachaze lokunengcondvo
nabalungisa imphendvulo: sisuse kutsatfu ngetulu,
ngaloko kumele singete kutsatfu kulemephendvulo kute
sitfole 19.

Khombisa loku kumugcatinombolo ebhodini.



Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. "45 - 18, ngisondzeta 18 liye ema-20
ngibuye ngisuse ema-20 kuma-26 kute ngitfole ema-25; bese ngilungisa imphendvulo
ngekungeta ku-1, ngaloko-ke imphendvulo ngema-27." Nawusaphindza tindlela tekubala
tebafundzi 'gcizelela lapho bebasondzeta nalapho bebalungisa khona.

Ividiyo yekusita

Kusondzeta nekulungisa 6



<https://youtu.be/kG9NCQ9gBPY>

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 7

Liminiti li-1 lekukhaliphisa ingcondvo

- a. Pop-Fizz: Imalipuli ye-10 lesedvute
- b. Pop-Fizz: Sizuba njani siye kumalipuli ye-10

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa lisu lekusondzeta nekulungisa kulexisombululo lapho tinombolo letingetulu kwayinye tingasondzetwa.

<p>Thishela: Singabuye sisebentise kusondzeta nekulungisa tinombolo letimbili nangabe tidvitane netinombolo letihlobene, sib. 19 + 39.</p> <p>Khombisa bafundzi ebhodini indlela yekusondzeta nekulungisa 19 + 39.</p> <p>Nawusabhala ebhodini, chaza:</p> <p>Thishela: Singatisondzeta totimbili tinombolo tiye ema-20 nakuma-40 sibuye sitihlanganise kute sitfole ema-60. Singete ku-1 ngakuyinye inombolo ngaloko-ke kumele silungise ngekususa ku-2 kuma-60 kute sitfole ema-58.</p> <p>Caphela: Nangabe silungisa tinombolo totimbili, sikhombisa ngekubala lokubhaliwe lokungenani kumugcatinombolo.</p>	$ \begin{aligned} & 19 + 39 \text{ (tisondzete tonkhe)} \\ & = 20 + 40 \text{ bese silungisa} - 2 \\ & \quad (-1 \text{ ngakunye}) \\ & = 60 - 2 \\ & = 58 \end{aligned} $
<p>Thishela: Ungakusebentisa njani kusondzeta nekulungisa nawubala 28 + 49?</p> <p>Khombisa bafundzi indlela yekusondzeta nekulungisa lesibalo ebhodini.</p>	$ \begin{aligned} & 28 + 49 \text{ (tisondzete totimbili)} \\ & = 30 + 50 \text{ ulungise} - 3 \\ & \quad (-2 \text{ na} - 1) \\ & = 80 - 3 \\ & = 77 \end{aligned} $
<p>Thishela: Ungakusebentisa njani kusondzeta nekulungisa nawubala 57 + 59 + 48?</p> <p>Khombisa bafundzi indlela yekusondzeta nekulungisa lesibalo ebhodini.</p>	$ \begin{aligned} & 57 + 59 + 48 \text{ (tisondzete tonkhe)} \\ & = 60 + 60 + 50 \text{ usondzete} - 6 \\ & \quad (-3, -1, -2) \\ & = 170 - 6 \\ & = 164 \end{aligned} $

Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. “38 + 29, ngisondzeta ema-38 kuma-40 nema-20 kuma-30 ngabuye nganeta ema-40 nema-30 kute ngitfole ema-70; ngabese ngilungisa imphendvulo ngekususa ku-1, ngaloko-ke imphendvulo ngema-67.” Nawusaphindza tindlela tekubala tebafundzi ’gcizelela lapho bebasondzeta nalapho bebalungisa khona.

Nangabe bafundzi bahluleka kuchaza indlela yekubala, bacele kutsi bakukhombe indlela yabo ngendlela yekubhala phasi (njengobe ukhonjisiwe ngemsebenti losebhodini).

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 2

Niketa bafundzi Liphepha lekusebentela 2 ekupheleni kwaseshini yanamuhla.

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wetenhloko labawufundzile.

Ividiyo yekusita

Kusondzeta nekulungisa 7



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

Kusondzeta nekulungisa

Ligama:

Kusondzeta nekulungisa: Liphepha lekusebentela 2

1.	$56 + 29 = \boxed{}$
2.	$54 - 38 = \boxed{}$
3.	$45 + 37 = \boxed{}$
4.	$325 - 99 = \boxed{}$
5.	$47 + 49 + 48 = \boxed{}$
6.	$47 + \boxed{} = 47 + 10 - 1$
7.	$77 - 28 = 77 - 30 + \boxed{}$
8.	$66 + 28 = 66 + \boxed{} - 2$
9.	$95 - 39 = 95 - \boxed{} + 1$
10.	Biyela umushotinombolo loniketa imphendvulo lefana nalena: $80 - 39$ $80 + 40 - 1$ $80 + 40 + 1$ $80 - 40 + 1$ $80 - 40 - 1$

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu lahlukene. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa kulokwekucalisa sifundvo lesilandzelako.

KUSONDZETA NEKULUNGISA: KWEKUCALISA SIFUNDVO 8

Liminiti li-1 lekukhaliphisa ingcondvo

Tungeleta indlu ukhulise ngema-20, nange-30, unciphise ngema-30, nange-40

Kulandzelana kwemsebenti

Kulesifundvo sikhetsa lisu lelilungele kusebenta, nekusebentisa lisu lekusondzeta nekulungisa kuletibalo lapho loku kumalula kakhulu.

Bhala emapheya etibalo letine ebhodini njengoba ukhonjisiwe bese ucela bafundzi basho: <ul style="list-style-type: none"> • lisu labangalisebentisela kusondzeta nekulungisa • lisu lelehlekile labangasebentisa (njengelisu lekubala uzuba, kndlulela eshumini, nekuphindza kabili) Cela bafundzi kutsi bakuphe tizatfu taloku labakukhetsile. <i>Caphela: 99 + 99 entiwe njenge 100 + 100 – 2 kusebentisa kusondzeta, kuphindza kabili (kuphindza kabili li-100 nge-200) nekulungisa.</i>	38 + 49 22 + 36 38 – 13 47 – 29 29 + 38 + 39 14 + 24 + 33 99 + 99 45 + 45
Cela bafundzi bacocisane ngekutsi bangakusebentisa njani kusondzeta nekulungisa kute basombulule loku: 38 + 49 47 – 29 29 + 38 + 39 Bafundzi kumele basho cishe lokufana neku-: <ul style="list-style-type: none"> • sondzeta ema-38 aye e-40 nema-49 aye ema-50, bese uhlanganisa ema-40 nema-50 kute utfole ema-90, bese ulungisa ngekususa ku-3 kuma-90. • sondzeta ema-29 aye ema-30, susa ema-30 kuma-47 kute utfole li-17, bese ulungisa ngekuhlanganisa ku-1 ngemuva kute utfole 18. • sondzeta ema-29 aye ema-30 usondzete kokubili ema-38 nema-39 aye ema-40, bese uhlanganisa ema-30 nema-40 nema-40 kute utfole li-110 bese ulungisa ngekususa ku-4 kute utfole li-106. 	38 + 49 47 – 29 29 + 38 + 39

<p>Cela bafundzi kutsi bacedzele lemisho ngekuphimisela:</p> <ul style="list-style-type: none"> • Kuneta 18 kulenombolo, ngingeta _____ bese ngisusa _____. • Kususa 18 kulenombolo ngisusa _____ bese ngingeta _____. <p>Cela bafundzi kutsi bagcwalise emabhokisi labhalwe ebhodini njengobe ukhonjisiwe.</p>	<p>Ngeta ema-38 utfole imphendvulo lefana nalena: + <input type="checkbox"/> - <input type="checkbox"/></p> <p>Susa ema-49 utfole imphendvulo lefana nalena: - <input type="checkbox"/> + <input type="checkbox"/></p> <p>Ngeta ema-99 utfole imphendvulo lefana nalena: + <input type="checkbox"/> - <input type="checkbox"/></p> <p>Susa ema-28 utfole imphendvulo lefana nalena: - <input type="checkbox"/> + <input type="checkbox"/></p>
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako *ngenhloko*:

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

Bafundzi kumele bachaze labakucabangako, sib. "29 + 48, ngisondzeta lama-29 aye e-30 nema-48 aye ema-50 bese ngehlanganisa ema-50 nema-30 kute ngitfole ema-80, bese ngilungisa imphendvulo ngekususa ku-3, ngaloko-ke imphendvulo ngema-57." Nawusaphindza tindlela tekubala tebafundzi' gcizelela lapho bebasondzeta nalapho bebalungisa khona.

Nangabe bafundzi bahluleka kuchaza kusebenta kwabo, bacele kutsi bakukhombise indlela ngesimo sembhalo.

Ividiyo yekusita

Kusondzeta nekulungisa 8



https://youtu.be/mij_d45rw00

Kusondzeta nekulungisa

Ligama:	
Kusondzeta nekulungisa: Ngemuva kwesivivinyo	
INCENYE YEKUCALA	
Emaminiti lama-2 alelikhasi	
1.	$34 + 20 = \boxed{}$
11.	$29 + 2 = \boxed{}$
2.	$42 - 3 = \boxed{}$
12.	$68 + 10 = \boxed{}$
3.	$57 - 10 = \boxed{}$
13.	$38 + 3 = \boxed{}$
4.	$51 - 2 = \boxed{}$
14.	$145 + 30 = \boxed{}$
5.	$178 - 30 = \boxed{}$
15.	$97 - 60 = \boxed{}$
6.	$43 + 40 = \boxed{}$
16.	$48 = \boxed{} - 2$
7.	$29 = \boxed{} - 1$
17.	$79 + \boxed{} = 80$
8.	$37 + \boxed{} = 40$
18.	$50 \text{ aphindvwe kibili} = \boxed{}$
9.	$97 = 100 - \boxed{}$
19.	$100 \text{ aphindvwe kibili} = \boxed{}$
10.	$88 + \boxed{} = 90$
20.	$28 + \boxed{} = 30$
Samba: 20	

Kusondzeta nekulungisa: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

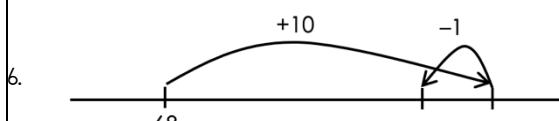
1. $34 + 19 = \boxed{}$

2. $54 - 29 = \boxed{}$

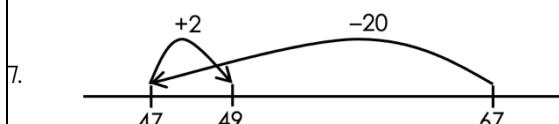
3. $27 + 98 = \boxed{}$

4. $234 - 99 = \boxed{}$

5. $97 + 98 + 99 = \boxed{}$



$68 + \boxed{} = 68 + 10 - 1$



$67 - 18 = 67 - 20 + \boxed{}$

8. $56 + 28 = 56 + \boxed{} - 2$

9. $84 - 39 = 84 - \boxed{} + 1$

0. Biyela umushotinombolo loniketa imphendvulo lefana nale:

$60 - 29$

$60 - 30 + 1$

$60 + 30 + 1$

$60 + 30 - 1$

$60 - 30 - 1$

Samba: 10

KUHLELA KABUSHA

Singeniso

Lokwekucalisa sifundvo kulesigaba kucondze kulokuhlela kabusha netindlela letehlukene lapho kuhlela kabusha (kugucula kuhleleka kwetinombolo kulokubala) kungenta kube malula kusebenta ngetibalo tekuhlanganisa nekuphindzaphindza. Loku kuvama kufaka phakatsi kutfola inhlanganisela leyakha tinombolo letihlobene lekumelula kubala ngato. Tinombolo letihlobene nguleto letimelula kusebenta ngato, futsi tivama kufaka phakatsi emamaltipuli elishumi. Leminye yalemisebenti iholwa nguthishela ebhodini kantsi leminye yekwentiwa bafundzi ngekukhululeka.

Emakhono ekukhumbula usheshisa

Kunemakhono ekukhumbula ngekusheshisa lamabili lekumele bafundzi bati ngawo lisu lekuhlela kabusha:

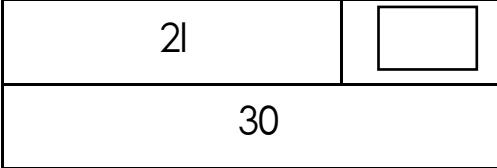
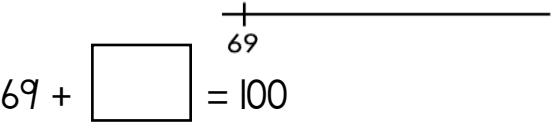
- ngekubona inhlanganisela yetinombolo letingetako, nobe kwakhela kuto, kwakha emamaltipuli e-10 (sib. 6 naku-4 nobe ku-3 ne-7, kantsi futsi 16 naku-4 nobe ema-32 ne-18)
- ngekubona inhlanganisela yetinombolo letingaphindzaphindvwa kute takhe emamaltipuli e-10 (sib. 2×5 , 5×4).

Ligama:

Kuhlela kabusha: Ngembi kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

1. Biyela tinombolo letimbili letakha 10. 7 4 2 3 9	11. $100 + 14 = \boxed{}$
2. Biyela tinombolo letimbili letakha 10. 5 4 1 6 8	12. $2 \times 5 = \boxed{}$
3. $6 + \boxed{} = 10$	13. Biyela tinombolo letimbili letakha 20. 8 14 12 3 19
4. $9 + 11 = \boxed{}$	14. Biyela tinombolo letimbili letakha 20. 15 4 1 16 8
5. Biyela tinombolo letimbili letakha 100. 24 50 30 38 70	15. $50 \times 2 = \boxed{}$
6. Biyela tinombolo letimbili letakha 100. 51 17 29 49 60	16. $140 + \boxed{} = 149$
7. $20 = 8 + \boxed{}$	17. Biyela tinombolo letimbili letakha 30. 18 14 12 7 19
8. $\boxed{} + 3 = 20$	18. Biyela tinombolo letimbili letakha 30. 10 14 9 16 13
9. 	19. 
10. $56 + 30 = \boxed{}$	20. $22 + 18 = \boxed{}$
Samba: 20	

Kuphindza uhlele: Ngembi kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1.	$6 + 98 = \boxed{}$
2.	$17 + 48 + 13 = \boxed{}$
3.	$199 + 98 + 1 + 2 = \boxed{}$
4.	$37 + 56 + 13 = \boxed{}$
5.	$38 + 125 + 15 = \boxed{}$
6.	$2 \times 7 \times 5 = \boxed{}$
7.	$6 + 98 = 98 + \boxed{}$
8.	$96 + 58 + 4 = 100 + \boxed{}$
9.	$99 + 97 + 1 + \boxed{} = 200$
10.	Biyela tinombolo letimbili letifanele longatihlanganisa kucala kulesethi: 37 88 12 Samba: 10

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 1

Liminithi li-1 lekukhaliphisa ingcondvo

Ngiyasho/uyasho: Yakha 10/Yakha 20

- a. Thishela usho inombolo lenedijithi yinye bese ukhombisa umfundzi kutsi aphendvule ngenombolo lengeta kulena kute akhe 10.

Thishela: 6 → Umfundzi 1: 4

Thishela: 3 → Umfundzi 2: 7

Thishela: 2 → Umfundzi 3: 8 njalo njalo...

- b. Thishela usho inombolo lesemkhatsini waku-1 nema-20 bese ukhombisa umfundzi kutsi aphendvule ngenombolo lengeta kulena kute akhe ema-20.

Thishela: 12 → Umfundzi 1: 8

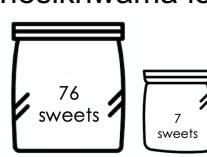
Thishela: 13 → Umfundzi 2: 7

Thishela: 5 → Umfundzi 3: 15 njalo njalo...

Lemidlalo yomibili ingadlalwa ngemapheya. Lomdlalo uchutjekiselwa kwakha lamanye emamaltipuli elishumi kulokwekuliphisa ingcondvo lokuseta.

Kulandzelana kwemsebenti

Kulesifundvo setfula lisu lekuhlela kabusha.

<p>Sebentisa iminwe yakho kukhombisa $5 + 3$ njengoba ukhonjisiwe ngentasi bese ubhala $5 + 3$ ebhodini:</p>  <p>Thishela:Lapha ngikukhombisa iminwe le-5 nale-3 lengetiwe Phambanisa tandla lesinye kulesinye (buka ngentasi):</p>  <p>Thishela: Nyalo lapha ngina $3 + 5$, kodvwa ngisabona linani lefanako leminwe. Ngaloko-ke sibona $5 + 3 = 3 + 5$. Bhala $5 + 3 = 3 + 5$ ebhodini. Yenta tibonelo letinyentana usebentisa iminwe nekuphambanisa tandla, sib. $4 + 1 = 1 + 4$. Thishela: Ngaloko-ke nangabe sihlanganisa tinombolo, akunandzaba kutsi tilandzelana njani nasitihlanganisa.</p> <p>Bamba sikhwama lesikhulu ngesandla sinye, nesikhwama lesincane ngalelesinye sandla.</p> 	<p>Bhala ebhodini: $5 + 3$</p> <p>$5 + 3 = 3 + 5$</p> <p>Bhala ebhodini: $7 + 76 = 76 + 7$</p>
--	---

Kuhlela kabusha

<p>Thishela: Nyalo fanekisa kutsi nginemawidi la-7 kulesikhwama (phakamisa sikhwama lesincane) nemaswidi lange-76 kulesikhwama (phakamisa sikhwama lesikhulu), ngaloko nginemawidi la 7 + 76.</p> <p>Phambanisa tandla takho ngetulu kwalesinye ngembi kwekutsi:</p> <p>Thishela: Nyalo lapha ngine 76 + 7, kodvwa ngisenelinani lelifanako lemaswidi. Ngaloko-ke 7 + 76 = 76 + 7.</p>	
<p>Thishela: Ngabe kuyasheshisa yini kubala 7 + 76 nobe 76 + 7?</p> <p>Sebentisa imigcatinombolo lemibili kukhombisa kutsi nawuhlanganisa si-7 kuma-76 kusheshisa kakhulu kunekuhlanganisa ema-76 ku-7 ngobe kunekuzuba lokuncane.</p> <p>Dweba lemigcatinombolo lemibili ebhodini kukhombisa loku.</p> <p>Caphela: Lomugcatinombolo ukhombisa kungeta si-7 ngekuhlanganisa ku-4 kuma-76 kute utfole ema-80, bese ungeta ku-3. Labanye bafundzi bangakhona kuhlanganisa si-7 ngekusheshisa. Loku kuhle. Khumbuta bafundzi kutsi bangabali ngabokunye.</p>	<p>7 + 76</p> <p>76 + 7</p>

Imisebenti yangamunye

Ngukuphi kwalokubala lokungentasi lokumele kuhlelwe kabusha ngembi kwekubala? Bafundzi bangasebentisa umugcatinombolo longakahleleki longabasita nangabe bawudzinga.

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

Bafundzi kumele bachaze labakucabangako, sib. "5 + 46, ngikuhlela kabusha kute ngitsi 46 + 5, bese ngingeta ku-4 kuma-46 kute ngitfole ema-50 bese ngingeta ku-1 kuma-50 kute ngitfole ema-51."

Tjela bafundzi kutsi BANGABALI ngabo-1.

Ividiyo yekusita

Kuhlela kabusha 1



<https://youtu.be/FIIM2einnNo>

Ividiyo yekusita

Kuhlela kabusha 2



<https://youtu.be/PdZN9ZWaoDQ>

Kuhlela kabusha

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 2

Liminithi li-1 lekukhaliphisa ingcondvo

Tibalo letichumene (sib. 8 + 2 → 10; 18 + 2 → 20; 28 + 2 → 30)

Thishela ubhala sibalo sekucala ebhodini:

$$8 + 2 = 10$$

Thishela utjela liklasi kwekutsi siyati si-8 sihlangene naku-2 silingana ne-10 bese ubuta imphendvulo yekubala lokuchumene. Khomba umfundzi ngamunye lekumele aphendvule.

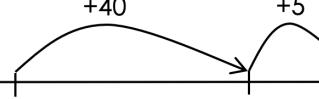
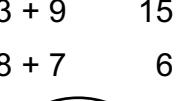
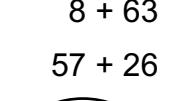
Thishela: 18 + 2 → Umfundzi 1: 20

Thishela: 28 + 2 → Umfundzi 2: 30

Thishela: 38 + 2 → Umfundzi 3: 40 njalo njalo...

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa lisu lekuhlela kabusha.

<p>Inkinga: $5 + 47$</p> <p>Thisela: Kute sibale $5 + 47$ singacula ku-5 bese sizuba siya phambili nge-47, nobe singacula kuma-47 bese sizuba siya phambili nge-5. Ngukuphi lokungasheshisa?</p>	<p>$5 + 47$</p> 						
<p>Dwweba imigcatinombolo yaletindlela totimbili ebhodini nakunesidzingo khombisa kutsi $47 + 5$ unekuzuba lokuncane.</p>							
<p>Thisela: Nyalo buka kuletibalo. Tibeke tibe ngemagcogco lamabili: tibalo lekumele sitihlele kabusha kute sitente ngekusheshisa, naletu letigahlala njengoba tinjalo.</p>	<p>Bhala:</p> <table style="width: 100%; text-align: center;"> <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> </table> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Hlela kabusha</p> </div> <div style="text-align: center;">  <p>Ungahleli kabusha</p> </div> </div>	$23 + 9$	$15 + 47$	$8 + 63$	$68 + 7$	$6 + 93$	$57 + 26$
$23 + 9$	$15 + 47$	$8 + 63$					
$68 + 7$	$6 + 93$	$57 + 26$					

Umsebenti wangamunye

Bafundzi kumele nyalo basebentise imidvwebo yemigcatinombolo kwenta tibalo letilandzelako. Bafundzi kumele babbale sibalo lesihlelwe kabusha, badvwebe umugcatinombolo bese babbala imphendvulo:

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

Bafundzi kumele bachaze labakucabangako, sib. "8 + 63, ngisihlela kabusha ngekutsi 63 + 8, bese nighlanganisa si-7 kuma-63 kute ngitfole ema-70 bese ngingeta ku-1 kuma-70 kute ngitfole ema-71."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 3

Liminiti li-1 lekukhaliphisa ingcondvo

Tungeleta likamelo: Yakha tinombolo letihlobene

Thishela ubhala ebhodini imishotinombolo lemitsatfu lechumene leyakha tinombolo letihlobene, sib. $7 + 3 = 10$ $17 + 3 = 20$ $37 + 3 = 40$

Uhamba utungeleta likamelo, buta bafundzi leminye imishotinombolo lechumene nalephethini leyakha tinombolo letihlobene. Bhala timphendvulo ebhodini.

Umfundzi 1: $47 + 3 = 50 \rightarrow$ Umfundzi 2: $87 + 3 = 90 \rightarrow$ Umfundzi 3: $107 + 3 = 110 \rightarrow$ njalo njalo.

Labanye bafundzi bangatsi $17 + 13 = 30$ nobe $37 + 23 = 60$. Loku kungarekhodwa.

Kulandzelana kwemsebenti

Kulesifundvo sitfola inhlanganisela yetinombolo letihlobene kute sikwati kubala malula ngetinombolo letintsatfu.

<p>Inkinga: $26 + 17 + 4$</p> <p>Thishela: Singasenta lesibalo ngalendlela, kodwva ngibona inhlanganisela yenombolo letihlobene kumushotinombolo. Ikuphi inhlanganisela yetinombolo letihlobene?</p> <p>Bafundzi: $26 + 4 = 30$</p> <p>Thishela: 30 ayinombolo lehlobene. Nyalo ayini $30 + 17?$</p> <p>Bafundzi: 47</p> <p>Gcugcutela bafundzi kutsi basebentise emasu ekubala uzuba ngenhloko kute babale lemphendvulo. Khumbuta bafundzi kutsi BANGABALI ngaboku-1.</p>	$\begin{array}{c} 26 + 17 + 4 \\ 26 + 17 + 4 \\ \swarrow \quad \searrow \\ 30 \end{array}$ $\begin{array}{r} 26 + 17 + 4 = 30 + 17 \\ = 47 \end{array}$
<p>Inkinga: $69 + 47 + 3$</p> <p>Thishela: Tfola inhlanganisela 'lehlobene' kulesibalo.</p> <p>Bafundzi: $47 + 3 = 50$</p> <p>Thishela: 50 ayinombolo lehlobene. Nyalo ayini $69 + 50?$</p> <p>Bafundzi: 119</p> <p>Gcugcutela bafundzi kutsi basebentise emasu ekuzuba ngenhloko kute babale imphendvulo $69 + 50$.</p> <p>Khumbuta bafundzi kutsi BANGABALI ngaboku-1.</p>	$\begin{array}{c} 69 + 47 + 3 \\ 69 + 47 + 3 \\ \swarrow \quad \searrow \\ 50 \end{array}$ $\begin{array}{r} 69 + 47 + 3 = 69 + 50 \\ = 119 \end{array}$

Kuhlela kabusha

Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako ngekutfola kucala inhlanganisela yetinombolo letihlobene bese babala imphendvulo:

$$25 + 18 + 5 \quad 44 + 38 + 12 \quad 3 + 65 + 27$$

Bafundzi kumele bachaze labakucabangako, sib. "25 + 18 + 5, ngicale ngahlanganisa si-5 kuma-25 kute ngitfole ema-30, ngabese ngihlanganisa li-18 kuma-30 kute ngitfole ema-48."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

Ividiyo yekusita

Kuhlela kabusha 3



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

Kuhlela kabusha

Ividiyo yekusita

Kuhlela kabusha 4



https://youtu.be/F_1UiS4QAQ4

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 4

Liminiti li-1 lekukhaliphisa ingcondvo

Ngitsi/Utsi: Yakha 30/Yakha 50

Kulandzelana kwemsebenti

Kulesifundvo sitilolongela kutfola inhlanganisela yetinombolo letihlobene kuletibalo.

<p>Inkinga: $15 + 47 + 5$</p> <p>Thishela: Namuhla sitawubuka kakhulu inhlanganisela yetinombolo letihlobene. Ikhona yini inhlanganisela yetinombolo kulokubala lokusebhodini?</p> <p>Bafundzi: Yebo, $15 + 5 = 20$.</p> <p>Thishela: Ngaloko-ke $20 + 47 = \text{ini?}$</p> <p>Bafundzi: 67</p>	$ \begin{array}{r} 15 + 47 + 5 \\ \swarrow \quad \searrow \\ 20 \\ 15 + 47 + 5 = 20 + 47 \\ = 67 \end{array} $
<p>Inkinga: $38 + 27 + 12$</p> <p>Thishela: Tfola inhlanganisela yetinombolo letihlobene.</p> <p>Bafundzi: $38 + 12 = 50$.</p> <p>Thishela: Ngaloko-ke $50 + 27 = \text{ini?}$</p> <p>Bafundzi: 77</p>	$ \begin{array}{r} 38 + 27 + 12 \\ \swarrow \quad \searrow \\ 50 \\ 38 + 27 + 12 = 50 + 27 \\ = 77 \end{array} $
<p>Thishela: Ngutiphi tinombolo letingangena ebhokisini kute takhe inhlanganisela yenombolo lehlobene?</p> <p>Bafundzi kumele banikete tinombolo letigcina ngaku-2 batotihlanganisa nema-38 kute takhe inombolo lehlobene, sib. 2, 32, 82 njll. Bangabuye banikete tinombolo letigcina ngaku-3 batihlanganise nema-27 kute takhe inombolo lehlobene, sib. 3, 13, 53 njll.</p>	$ \begin{array}{ll} 38 + 27 + \square & \\ 38 + 27 + \boxed{32} & 38 + 27 + \boxed{13} \\ 38 + 27 + \boxed{2} & 38 + 27 + \boxed{53} \end{array} $

Imisebenti yangamunye

Bafundzi kumele nyalo babbale tinombolo letisihlanu letehlukene letingangena ebhokisini ngalinye kute takhe inhlanganisela yenombolo lehlobene.

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

Bafundzi kumele bachaze labakucabangako, sib. "24 + 49, ngingabhala inombolo legcina ngaku-1 ngiyihlanganise nema-49 nobe ngingabhala inombolo legcina nge-6 ngiyihlanganise nema-24."

Umsebenti wekuya nawo ekhaya: 1

Niketa bafundzi Liphepha lekusebentela 1 ekugcineni kweneshini yanamuyla.

Ligama:

Kuhlela kabusha: Liphepha lekusebentela I

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

Kuhlela kabusha

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu ekubala lahlukene. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa kulokwekucalisa sifundvo lokulandzelako.

Ividiyo yekusita

Kuhlela kabusha 5



<https://youtu.be/dz79xkmVQy8>

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 5

Liminiti li-1 lekukhaliphisa ingcondvo

Tfola inhlanganisela yenombolo lehlobene

Thishela ubhala ebhodini:

23 2 8 25 36 17 21 19 44

Thishela usho nobe nguyiphi inombolo, sib. 13, bafundzi kumele batsatse yinye yetinombolo letisebhodini letitokwakha inombolo lehlobene nayingetwe tikwenombolo, sib. 17 lingakha ema-30 layinombolo lehlobene nayihlanganiswe ku-13.

Kulandzelana kwemsebenti

Kulesifundvo sitfola kuchumana kwetinombolo letihlobene nasihlanganisa tinombolo letinyenti.

<p>Inkinga: $7 + 5 + 3 + 1 + 8 + 5 + 2$</p> <p>Thishela: Tfola inhlanganisela yetinombolo lehlobene?</p> <p>Bafundzi: $7 + 3 = 10; 5 + 5 = 10; 8 + 2 = 10$</p> <p>Bekisa lenhlanganisela ebhodini njengoba bafundzi batisho.</p> <p>Thishela: ngaloko-ke $7 + 5 + 3 + 1 + 8 + 5 + 2$ li 10 + 10 + 1 lokunge 31.</p>	<p>$7 + 5 + 3 + 1 + 8 + 5 + 2$</p>
<p>Inkinga: $18 + 4 + 3 + 2 + 17 + 6 + 9$</p> <p>Thishela: Tfola inhlanganisela yenombolo lehlobene?</p> <p>Bafundzi: $18 + 2 = 20; 4 + 6 = 10; 3 + 17 = 20$</p> <p>Bekisa inhlanganisela yetinombolo ebhodini njengoba bafundzi batisho.</p> <p>Thishela: Ngaloko-ke $18 + 4 + 3 + 2 + 17 + 6 + 9$ ngema 20 + 20 + 10 + 9 lokunge 59</p>	<p>$18 + 4 + 3 + 2 + 17 + 6 + 9$</p>

Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako *ngenhloko* ngekutfolia inhlanganisela yenombolo lehlobene bese bayabala:

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

Bafundzi kumele bachaze labakucabangako, sib. "sibonelo sekucala, ngihlanganisa si-6 kuku-4 kute ngitfole 10, bese ngihlanganisa ku-2 ku-8 kute ngitfole 10, bese ngihlanganisa ku-3 ne-9 kute ngitfole 12 ne-10 lihangene ne-10 lahangana ne-12 ngema-32."

Tjela bafundzi kutsi BANGABALI ngaboku-1.

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 6

Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz: Phindzaphindza nge-5

Thishela utsi ‘pop’ bese bafundzi batsi ‘fizz’; ngaloko thishela usho inombolo, bese bafundzi baphendvula ngalenombolo lebayiphindze nge-5.

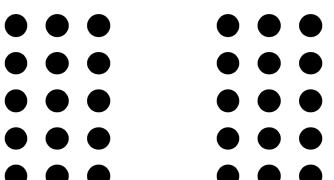
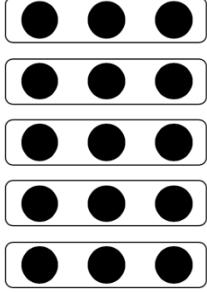
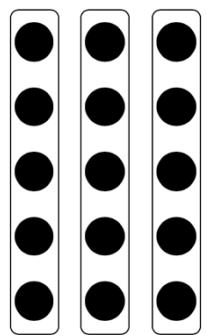
Thishela: pop	→	Bafundzi: fizz
Thishela: 2	→	Bafundzi: 10
Thishela: pop	→	Bafundzi: fizz
Thishela: 3	→	Bafundzi: 15
Thishela: pop	→	Bafundzi: fizz
Thishela: 8	→	Bafundzi: 40
Thishela: pop	→	Bafundzi: fizz
Thishela: 9	→	Bafundzi: 45 njalo njalo...

Lomdlalo ungadlalwa kute utilolongele nobe nguliphi lithebulu lekuphindzaphindza. Thishela kumele nje acacise inombolo lekumele bafundzi bayiphindzaphindze nakucala umdlalo.

Kulandzelana kwemsebenti

Kulesifundvo setfula kuhlela kabusha nawuphindzaphindza.

Caphela: *Imigca yemachashati nemakholomu ayatfolakala ebhukwini le-Print Master.*

<p>Namatselisa emaphepha lamabili ebhodini lanemigca yemachashati la-5 ngaku-3. Yenta bafundzi bemukele kutsi lamachashati ayafana.</p> 	 5×3
<p>Usebentisa liphepha lekucala, veta kutsi sinemachashati la-5 ngemagcogco la-3 ngekubiyela umugca ngamunye, bese ubhala 5×3 ebhodini.</p> <p>Thishela: Sekawonkhe sibona la-3, 6, 9, 12, 15. (khomba kumugca ngamunye usabala)</p> <p>Usebentisa liphepha lesibili lelinemachashati la-5 ngaboku-3 ngeluhlelotinombolo, veta kutsi sinemagcogco lama-3 e-5 ngekubiyela likholomu ngalinye, bese ubhala 3×5.</p> <p>Thishela: Sekawonkhe sibona la-5, 10, 15 (khomba ikholomu ngayinye usabala). Ngaloko-ke sibona $5 \times 3 = 3 \times 5$. Njengoba sentile nasihlanganisa, singantjintja kulandzelana ngekuphindzaphindza.</p>	 3×5
	$5 \times 3 = 3 \times 5$

Kuhlela kabusha

Namatselisa liphepha ebhodini lemachashati la-10 lenemigca le-3.

Thishela: Asibale mangaki emachashati sekawonkhe (ukhombisa imigca).

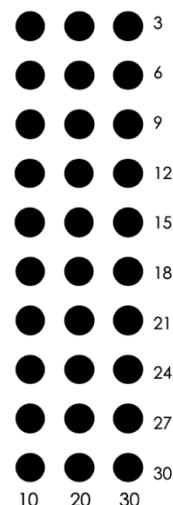
Bafundzi: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30.

Thishela: Asiphambanise luhlelo sibale ngalendlela (ukhomba emakholomu).

Bafundzi: 10, 20, 30

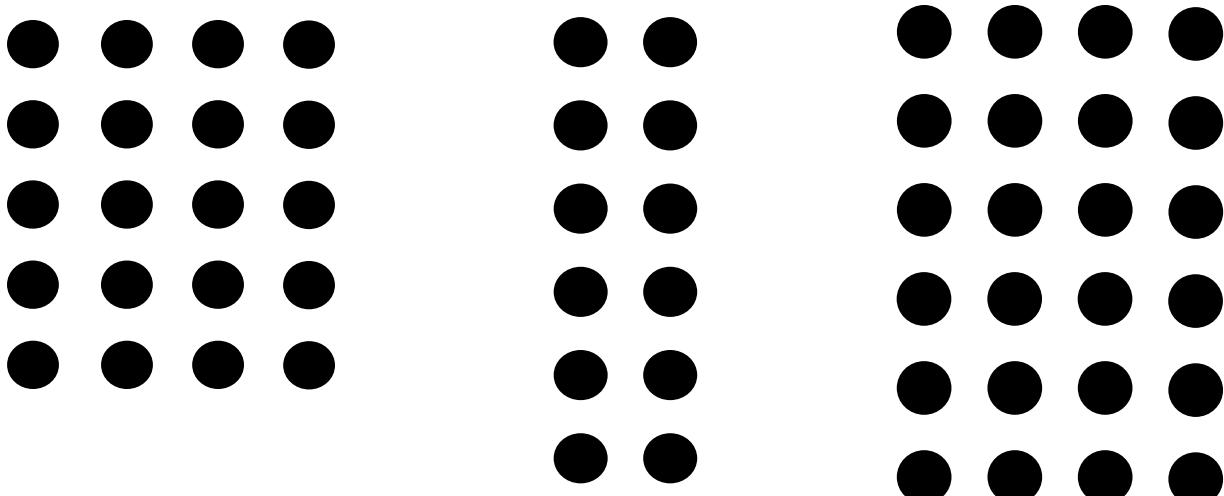
Thishela: Ngabe bekusheshisa yini kubala konkhe loku (khombisa ngetandla emamaltipuli aku-3 ushona phasi) nobe bala loku (khombisa ngetandla uvundla kumamaltipuli e-10)?

Bafundzi kumele bavume kutsi kumalula nobe kuyasheshisa kwenta 10, 20, 30.



Umsebenti wangamunye

Bafundzi kumele nyalo babbale tibalo tekuphindzaphindza letimbili letingentiwa nawubala linani lemachashati ngakusinye sitfombe lesingentasi. Bafundzi kumele bakhetse kutsi ngukuphi kubala lokumelula kubo. Lamachashati aloluhlelotinombolo asebhukwini le-Print Master futsi angasetjentiswa ebhodini.

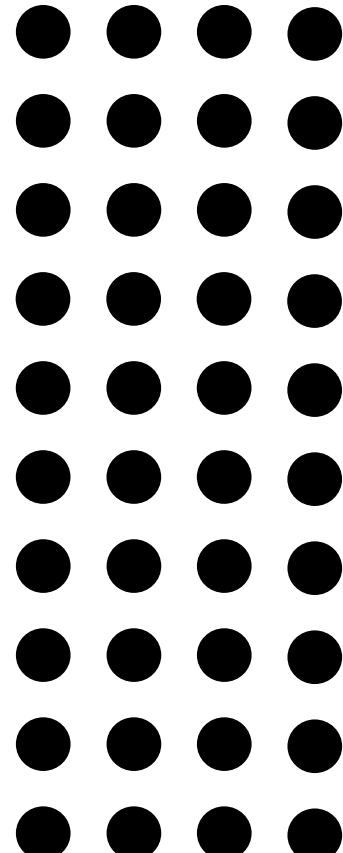


Ividiyo yekusita

Kuhlela kabusha 6



<https://youtu.be/cCVo9O9ibaE>



Kuhlela kabusha

Ividiyo yekusita

Kuhlela kabusha 7



<https://youtu.be/ZMaAhLcdAQo>

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 7

Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz: Phindzaphindza nge-10

Kulandzelana kwemsebenti

Kulesifundvo sitfola inhlanganisela yetinombolo letihlobene phakatsi kwetibalo tekuphindzaphindza letinetinombolo letintsatfu.

<p>Inkinga: $2 \times 7 \times 5$</p> <p>Thishela: Singenta lesibalo ngalendlela, kodwa ngibona inhlanganisela yenombolo lehlobene. Ingakuphi inhlanganisela yenombolo lehlobene?</p> <p>Bafundzi: $2 \times 5 = 10$</p> <p>Thishela: 10 liyinombolo lehlobene. Asisebentise loko kute sente lesibalo.</p> <p>Bhala $2 \times 7 \times 5 = 2 \times 5 \times 7$ ebhodini.</p> <p>Thishela: Siyati $2 \times 5 = 10$. Liyini 10×7?</p> <p>Lalela bafundzi labati imphendvulo, nobe labangabala bazuba ngema-10. Khumbuta bafundzi kutsi BANGABALI ngaboku-1.</p> <p>Bafundzi: 70</p>	$\begin{array}{c} 2 \times 7 \times 5 \\ \swarrow \quad \searrow \\ 10 \end{array}$ $\begin{array}{r} 2 \times 7 \times 5 = 10 \times 7 \\ \quad \quad \quad = 70 \end{array}$
---	---

Imisebenti yangamunye

Bafundzi kumele nyalo basebentise inhlanganisela yetinombolo letihlobene kute baphendvule tibalo letilandzelako:

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

Bafundzi kumele bachaze labakucabangako, sib. "2 x 6 x 5, ngiyati ku-2 kuphindzaphindvwe nge-5 kuniketa li-10, kantsi li-10 liphindzaphindvwe ka-6 kuba nge-60, ngaloko imphendvulo nge-60."

Caphela: Bafundzi bangaphakamisa letinye tindlela tekwenta loku ngekusheshisa.sib. umfundzi angesta $2 \times 6 \times 5$ ngekutsi $6 \times 5 = 30$ nema-30 aphindvwe kabili nge-60. Lena yindlela lenye yekubala kahle.

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 2

Niketa bafundzi Liphepha lekusebentela 2 ekupheleni kweneshini yanamuha.

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wetenhloko labawufundzile.

Ligama:

Kuhlela kabusha: Liphepha lekusebentela 2

1. $8 + 94 = \boxed{}$

2. $11 + 27 + 19 = \boxed{}$

3. $99 + 198 + 2 + 1 = \boxed{}$

4. $48 + 23 + 12 = \boxed{}$

5. $56 + 115 + 25 = \boxed{}$

6. $2 \times 9 \times 5 = \boxed{}$

7. $3 \times 10 = 10 \times \boxed{}$

8. $9 + 93 = 93 + \boxed{}$

9. $91 + 37 + 9 = 100 + \boxed{}$

10. $99 + 96 + 1 + \boxed{} = 200$

II. Biyela tinombolo letimbili letifanele longatihlanganisa kucala:

74 26 83

12. Biyela tinombolo letimbili letifanele longatihlanganisa kucala kulesethi:

2 38 5

Kuhlela kabusha

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu ekubala lehlukene. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa ngembi KWEKUCALISA SIFUNDVO lesilandzelako.

Kuhlela kabusha

Ividiyo yekusita

Kuhlela kabusha 8



<https://youtu.be/Sh0e84cPf2U>

KUHLELA KABUSHA: KWEKUCALISA SIFUNDVO 8

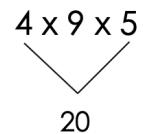
Liminiti li-1 lekukhaliphisa ingcondvo

Pop-Fizz: Phindzaphindza nge-5

Pop-Fizz: Phindzaphindza nge-10

Kulandzelana Kwemsebenti

Kulesifundvo sitfola inhlanganisela yetinombolo letihlobene phakatsi kwetibalo letiphindzaphindzako.

<p>Sibalo: $4 \times 9 \times 5$</p> <p>Thishela: Singenta lesibalo ngalendlela, kodwva ngibona inhlanganisela yenombolo lehlobene. Ingakuphi inhlanganisela yenombolo lehlobene?</p> <p>Bafundzi: $4 \times 5 = 20$</p> <p>Thishela: 20 ayinombolo lehlobene. Asisebentise loko kute sihlele kabusha kubala.</p> <p>Bhala $4 \times 9 \times 5 = 4 \times 5 \times 9$ ebhodini.</p> <p>Thishela: Singahlela kabusha bese sibhala loku njenga $4 \times 5 \times 9$. Siyati kutsi $4 \times 5 = 20$. Asente loku 20×9 ngekubala ngema-20.</p> <p>Bafundzi: 20, 40, 60, 80, 100, 120, 140, 160, 180.</p>	 $4 \times 9 \times 5 = 4 \times 5 \times 9$ $= 20 \times 9$ $= 180$
--	--

Imisebenti yangamunye

Bafundzi kumele nyalo basebentise inhlanganisela yetinombolo letihlobene kute baphendvule tinkinga letilandzelako:

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

Bafundzi kumele bachaze labakucabangako, sib. "4 x 3 x 5, ngiyati ku-4 kuhindzaphindvwe nge-5 kukuniketa emashumi lamabili, kantsi ema-20 aphindzaphindvwe ka-3 kuba ngema-60, ngaloko imphendvulo ngema-60."

Caphela: Bafundzi bangaphakamisa letinye tindlela tekwenta loku ngekusheshisa. Sib. umfundzi angenta $4 \times 3 \times 5$ njengekutsi $4 \times 3 = 12$ ne $12 \times 5 = 60$. Lena ngulenyenye indlela yekubala kahle.

Ligama:

Kuhlela kabusha: Ngemuva kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

Biyela tinombolo letimbili letakha 10.

7 4 2 3 9

11. $100 + 32 = \boxed{}$

Biyela tinombolo letimbili letakha 10.

5 4 1 6 8

12. $2 \times 5 = \boxed{}$

13. $7 + \boxed{} = 10$

Biyela tinombolo letimbili letakha 20.
8 14 12 3 19

14. $9 + 11 = \boxed{}$

Biyela tinombolo letimbili letakha 20.
15 4 1 16 8

Biyela tinombolo letimbili letakha 100.

24 50 30 38 70

15. $50 \times 2 = \boxed{}$

Biyela tinombolo letimbili letakha 100.

51 17 29 49 60

16. $140 + \boxed{} = 149$

17. $20 = 8 + \boxed{}$

Biyela tinombolo letimbili letakha 30.
18 14 12 7 19

18. $\boxed{} + 3 = 20$

Biyela tinombolo letimbili letakha 30.
10 14 9 16 13

21	<input type="text"/>
30	

19. $69 + \boxed{} = 100$

20. $56 + 30 = \boxed{}$

20. $22 + 18 = \boxed{}$

Samba: 20

Kuhlela kabusha

Kuhlela kabusha: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1.	$8 + 97 =$	<input type="text"/>
2.	$27 + 48 + 23 =$	<input type="text"/>
3.	$199 + 98 + 1 + 2 =$	<input type="text"/>
4.	$37 + 56 + 13 =$	<input type="text"/>
5.	$38 + 125 + 15 =$	<input type="text"/>
6.	$2 \times 7 \times 5 =$	<input type="text"/>
7.	$8 + 97 = 97 +$	<input type="text"/>
8.	$96 + 58 + 4 = 100 +$	<input type="text"/>
9.	$99 + 97 + 1 +$	<input type="text"/> = 200
10.	Biyela tinombolo letimbili letifanele longatihlanganisa kucala kulesethi:	
	43 36 14	
	Samba: 10	

KUCHUMANISA KUHLANGANISA NEKUSUSA

Singeniso

Injongo yalokwekucalisa sifundvo ikubudlelwano lobusemkhatsini wekuhlanganisa nekususa. Sisebentisa lobudlelwano kute sintjintje tibalo letisukela kulokuhlanganisa tiye kulokususa, nekususa kuye kulokuhlanganisa, njengelisu lekubala. Loku kufaka phakatsi kuvisisa budlelwano lobusemkhatsini waletibalo letimbili nekuvisisa budlelwano lobusemkhatsini wetinombolo temishotinombolo lehlanganisako nalesusako. Leminye yalemisebenti iholwa nguthishela ebhodini bese leminye yawo yentiwa bafundzi ngekukhululeka.

Emakhono ekukhumbula ngekusheshisa

Kunemakhono ekukhumbula ngekusheshisa lamatsatfu lekumele bafundzi bati ngawo budlelwano lobusemkhatsini wekuhlanganisa nekususa njengelisu lekubala:

- kuhlanganisa tinombolo letinedijithi yinye kutinombolo letinemadijithi lamabili, lokufaka phakatsi nekndlulela emashumini (sib. 28 + 4; 39 + 2)
- kususa tinombolo letinedijithi yinye kutinombolo letinemadijithi lamabili, lokufaka phakatsi nekndlulela emashumini (sib. 33 – 5; 52 – 4)
- kusebenta kamalula ngemidvwebo yema-bha kute babone indlela lemelula yekusombulula tibalo letihlobene.

Ligama:

Kuchumanisa kuhlanganisa nekususa: Ngembi kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

1. $88 + \boxed{\quad} = 92$

Gcwalisa 15, 5 nema-20
kumishotinombolo lengentasi (II - I4).

15	5
20	

2. $42 - 4 = \boxed{\quad}$

$\boxed{\quad} - 5 = \boxed{\quad}$

3. $86 + 5 = \boxed{\quad}$

$\boxed{\quad} + 5 = \boxed{\quad}$

4. $17 + \boxed{\quad} = 23$

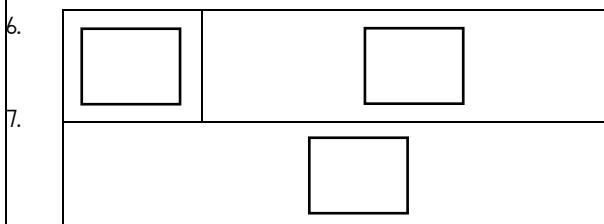
$\boxed{\quad} - \boxed{\quad} = 5$

5. $199 + \boxed{\quad} = 201$

$5 + \boxed{\quad} = \boxed{\quad}$

Gcwalisa letinombolo letintsatfu
emabhokisini lafanele: II - 9 = 2.

15. $99 + \boxed{\quad} = 102$



16. $21 - \boxed{\quad} = 19$

8. $302 - 5 = \boxed{\quad}$

18. $47 + \boxed{\quad} = 55$

9. $29 + \boxed{\quad} = 34$

19. $34 - \boxed{\quad} = 29$

10. $91 - \boxed{\quad} = 89$

20. $75 + \boxed{\quad} = 82$

Samba: 20

Kuchumanisa kuhlanganisa nekususa: Ngembi kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alelikhasi

1.	$92 - 88 = \boxed{}$				
2.	$4 + \boxed{} = 402$				
3.	$\boxed{} - 82 = 5$				
4.	$82 - 75 = \boxed{}$				
5.	$201 - 199 = \boxed{}$				
6.	<table border="1" style="width: 100%; height: 100px;"> <tr> <td style="width: 25%; height: 50%;"><input type="text"/></td> <td style="width: 75%; height: 50%; text-align: center;">99</td> </tr> <tr> <td colspan="2" style="height: 50%; text-align: center;">102</td> </tr> </table>	<input type="text"/>	99	102	
<input type="text"/>	99				
102					
$27 + 15 = 42$ $42 + 15 = 57$					
7.	$42 - 15 = \boxed{}$				
$24 + 42 = 66$ $24 + 18 = 42$					
8.	$\boxed{} + 24 = 42$				
<p>Sebentisa letinombolo letintsatfu letingentasi kubala ususa ngetindlela letimbili letehlukene:</p> $83 + 37 = 120$					
9.	$\boxed{} - \boxed{} = \boxed{}$				
10.	$\boxed{} - \boxed{} = \boxed{}$				
Samba: 10					

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 1

Liminiti li-1 lekukhaliphisa ingcondvo

Kuhlanganisa ngekusheshisa: Tinombolo letinedijithi yi-1 netinombolo letinemadijithi la-2

Khetsa inombolo lenemadijithi la-2 bese ucela bafundzi kutsi bahlanganise tinombolo letehlukene letinedijithi yi-1 kuyo.

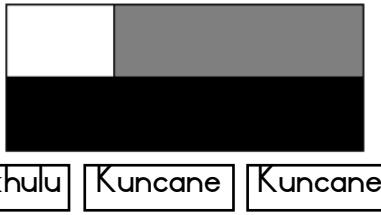
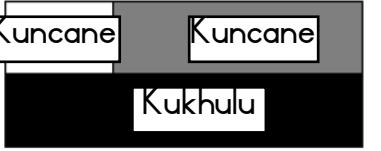
Thishela: 29 + 4	→	Bafundzi: 33	
Thishela: 29 + 2	→	Bafundzi: 31	
Thishela: 29 + 5	→	Bafundzi: 34	
Thishela: 29 + 7	→	Bafundzi: 36	njalo njalo...
Thishela: 37 + 5	→	Bafundzi: 42	
Thishela: 37 + 9	→	Bafundzi: 46	
Thishela: 37 + 6	→	Bafundzi: 43	
Thishela: 37 + 3	→	Bafundzi: 40	njalo njalo...

Caphela: Bafundzi bangabala ngekusheshisa baye etulu naphasi nangabe bahlanganisa nobe basusa 2, 3, nobe 4, kodvwa kumele bagcugcutelwe kutsi basebentise lisu lekndlulela eshumini nangabe bahlanganisa nanabasusa 5, 6, 7, 8, ne-9 basebentisa sitfombe senhloko semugcatinombolo.

Kulandzelana Kwemsebenti

Kulesifundvo sisebentisa imidvwebo ye-bha kute sichumanise kuhlanganisa nekususa.

*Caphela: Umdvwebo we-bha lomnyama, lomphunga nalomhlophe ukhona ebhukwini
le-Print Master.*

<p>Thishela: Kumndeni wemdvwewebo we-bha, lama-bha lamabili lamancane nakahlangene alingana ne-bha lenkhulu. Nasibuka emasayizi alama-bha lenemibala leyehlukene (lomhlophe, lomphunga nalomnyama) sibona kutsi budze balambaba lamancane lama-2 nakahlangene alingana nebudze be-bha lenkhulu.</p> <p>Thishela: Setsa i-bha lenkhulu kakhulu (lemnyama) ‘Kukhulu’ (namatselisa ilebuli ‘Kukhulu’ ku-bha lemnyama), bese setsa ema-bha lamancanyane lamabili ‘Kuncane’ (namatselisa lamalebuli ‘Kuncane’ kulama-bha lamancanyana).</p> <p>Thishela: Budze ‘baKukhulu bulingana naKuncane ahlangene naKuncane’</p> <p>Thishela: Ngiphe leminye imisho lehlanganisako nalesusako yemdvwewebo we-bha.</p>	<p>Namatselisa umdvwebbese unamatselisa emagama we-bha longentasi ebhodini bese unamatselisa emagama (Kukhulu, Kuncane, Kuncane) ngentasi kwemdvwewebo.</p>  <p style="text-align: center;">Kukhulu Kuncane Kuncane</p>  <p style="text-align: center;">Kuncane Kuncane Kukhulu</p> <p style="text-align: center;">Kukhulu = Kuncane + Kuncane</p>
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<p>Umfundzi: Kukhulu – Kuncane = Kuncane, njll.</p> <p>Bhala umfundzi uniketa yinye ngesikhatsi, ubuta liklasi kutsi liyemukela nobe alemukeli sipho (kanye netizatfu).</p> <p>Thishela: Kunjani ‘Kuncane – Kukhulu = Kuncane’? (kubhale)</p> <p>Bafundzi bayasho kutsi ngabe umusho uliciniso nobe ungemanga. Cela bafundzi kutsi bakuphetizatfu.</p> <p>Dwweba umugca uvundle kumisho bese liklasi livuma kutsi ingemanga). Bhala ‘ngemanga’ dvutane nayo.</p> <p>Yenta lokufanako ‘Kuncane + Kukhulu = Kuncane’</p>	<p>Kukhulu – Kuncane = Kuncane</p> <p>Kuncane + Kuncane = Kukhulu</p> <p>Kuncane – Kukhulu = Kuncane?</p> <p>Kuncane – Kukhulu = Kuncane ngemanga</p> <p>Kuncane + Kukhulu = Kuncane ngemanga</p>
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Imisebenti yangamunye

Bafundzi kumele nyalo bazame liphepha lekusebentela langamunye Lekwekucalisa Sifundvo 1.

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 1



<https://youtu.be/nha592FZEAc>

Kuchumanisa kuhlanganisa nekususa

Kuchumanisa kuhlanganisa nekususa Kwekucalisa Sifundvo 1: Umsebenti wangamunye

Bhala emagama Kukhulu, Kuncane naKuncane dvutane nema-bha lafanele kulomdvwebo longentasi:

3	6
9	

Faka lumphawu (✓) edvute nemishotinombolo leliciniso, nesiphambano edvute kwemishotinombolo lengemanga (✗):

$$3 + 6 = 9 \quad 6 - 3 = 9$$

$$9 = 6 + 3 \quad 9 - 3 = 6$$

$$6 + 9 = 3 \quad 3 = 9 - 6$$

$$6 + 3 = 9 \quad 9 - 6 = 3$$

$$3 + 9 = 6 \quad 3 - 6 = 9$$

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 2

Liminithi li-1 lekukhaliphisa ingcondvo

Kususa Ngekusheshisa: Tinombolo tedijithi yi-1 kutinombolo temadjithi la-2

Khetsa inombolo lenemadjithi la-2 bese ubuta bafundzi kutsi basuse inombolo lehlukile lenedijithi yi-1 kuyo.

Thishela: 71 – 1 → Bafundzi: 70

Thishela: 71 – 3 → Bafundzi: 68

Thishela: 71 – 5 → Bafundzi: 66

Thishela: 71 – 7 → Bafundzi: 64 njalo njalo...

Thishela: 4 2 – 2 → Bafundzi: 40

Thishela: 42 – 4 → Bafundzi: 38

Thishela: 42 – 6 → Bafundzi: 36

Thishela: 42 – 9 → Bafundzi: 33 njalo njalo...

Kulandzelana Kwemsebenti

Kulesifundvo sikhombisa budlelwane bekuhlanganisa nekususa lobusemkhatsini wetinombolo kuletisemndenini wetinombolo.

<p>Thishela: Ungacabanga kutsi tingachunyaniswa njani tinombolo 4, 6 ne 10?</p>	<p>Bhala 4, 6 ne 10 ebhodini.</p>				
<p>Bafundzi bangaveta budlelwano njenekutsi ‘kune nesitfupha kwakha lishumi, nobe ‘nangabe sisusa kune tikwelishumi sitfola sitfupha’, nobe ‘$4 + 6 = 10$’ nobe ‘$10 - 4 = 6$’.</p>	<p>4 6 10</p>				
<p>Bhala lokuniketwa ngumfundzi ngamunye ngesikhatsi, ubuta liklasi kutsi imibono iliciniso nobe ingemanga (kanye netizatfu). Cima labakuniketako lokungemanga.</p>	<p>kune nesitfupha kwakha lishumi lishumi ususe sitfupha kulingana nakune</p>				
<p>Thishela: Tinombolo 4, 6 ne 10 tiyachumana nangabe sihlanganisa nobe sisusa. Tingacatjangwa njenekutsi ngumndeni wenombolo. Umdvwebo we-bha wetinombolo letingumndeni, tinombolo letincane letimbili titonkhe tilingana nenombolo lenkhulu ngesayizi. Lapha, budze ba $4 + 6$ (leletincane totimbili emndenini) tilingana nebudze beli-10 (lelenkhulu kulomndeni).</p>	<p>$4 + 6 = 10$ $6 + 4 = 10$ $10 - 6 = 4$ $10 - 4 = 6$</p>				
<p>Dvweba umdvwebo we-bha.</p>	<table border="1"> <tr> <td>4</td> <td>6</td> </tr> <tr> <td></td> <td>10</td> </tr> </table>	4	6		10
4	6				
	10				
<p>Thishela: Letinye tinombolo letintsatfu letichumene nangabe sihlanganisa futsi sisusa 8, 3 ne 5. Letinombolo nato tingumndeni</p>	<p>Bhala 8, 3 ne 5 ebhodini.</p>				
	<p>8 3 5</p>				

<p>wenombolo. Tichumene njani letinombolo nemdvwebo we-bha?</p> <p>Dvweba umdvwebo we-bha longanalutfo njengobe ukhonjisiwe.</p> <p>Bafundzi baveta tichumanisi letisemkhatsini we 8, 3 ne 5 futsi nalapho inombolo ngayinye kumele iye kumdvwebo we-bha.</p> <p>Bhala lokuniketwa ngumfundzi njengakucala. Rekhoda lokunikiwe lokwamukelekile ngemakholomu lamabili ebhodini. Ungaba nesidzingo sekusita bafundzi ngetibalo leti-2 tekugcina kukholomu ngayinye ngekusebentisa tinhlaka kanje:</p> <p>$8 = \square + \square$; $3 = \square - \square$; $5 = \square \quad \square$</p> <p>Thishela: Kumndeni wenombolo ngamunye singakha imishotinombolo yekuhlanganisa le-4 neyekususa le-4. Asibuyele kusibonelo setfu lesengcile sibone kutsi ngabe yini lesele.</p> <p>Bhala imishotinombolo ye 8, 3 ne 5 lebeyisele.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td colspan="2" style="height: 40px;"></td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">+ kubala</td><td style="padding: 5px;">- kubala</td></tr> <tr> <td style="padding: 5px;">$5 + 3 = 8$</td><td style="padding: 5px;">$8 - 3 = 5$</td></tr> <tr> <td style="padding: 5px;">$3 + 5 = 8$</td><td style="padding: 5px;">$8 - 5 = 3$</td></tr> <tr> <td style="padding: 5px;">$8 = 5 + 3$</td><td style="padding: 5px;">$5 = 8 - 3$</td></tr> <tr> <td style="padding: 5px;">$8 = 3 + 5$</td><td style="padding: 5px;">$3 = 8 - 5$</td></tr> </table>					+ kubala	- kubala	$5 + 3 = 8$	$8 - 3 = 5$	$3 + 5 = 8$	$8 - 5 = 3$	$8 = 5 + 3$	$5 = 8 - 3$	$8 = 3 + 5$	$3 = 8 - 5$
+ kubala	- kubala														
$5 + 3 = 8$	$8 - 3 = 5$														
$3 + 5 = 8$	$8 - 5 = 3$														
$8 = 5 + 3$	$5 = 8 - 3$														
$8 = 3 + 5$	$3 = 8 - 5$														

Umsebenti wangamunye

Bafundzi kufanele basebente nemlingani bese badvweba umdvwebo we-bha wemndeni wenombolo. Kufanele babhale tibalo tekuhlanganisa le-4 netekususa le-4 temndeni wenombolo

Hamba hamba uhlole umsebenti wemapheya bese uyasita lapho kunesidzingo khona.

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 2



<https://youtu.be/fKPfCfF0w1I>

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 3

Liminiti li-1 lekukhaliphisa ingcondvo

- a. Kuhlanganisa ngekusheshisa: Tinombolo letinedijithi yi-1 naletinemadijithi la-2
- b. Kususa ngekusheshisa: Tinombolo letinedijithi yi-1 kuletinemadijithi la-2

Kulandzelana kwemsebenti

Kulesifundvo sitiolongela kuchumanisa kuhlanganisa nekususa sisebentisa imidvwebo ye-bha.

<p>Thishela: Tinombolo 17, 5 nema 22 tichumene nangabe sihlanganisa sibuye sisuse. Titinombolo temndeni.</p> <p>Dweba umdvwebo we-bha longanalutfo njengobe ukhonjisiwe.</p> <p>Bafundzi baveta kuchumana lokusemkhatsini we 17, 5 nema 22 nalapho inombolo ngayinge kumele iye khona kumdvwebo we-bha.</p> <p>Bhala lokuniketwa ngumfundzi njengakucala kumakholomu lamabili etibalo tekuhlanganisa nekususa. Cima lokunkiwe lokungakafaneli. Ungaba nesidzingo sekusita bafundzi ngetibalo leti-2 tekugcina kukholomu ngayinye ngekusebentisa tinhlaka kanje:</p> $22 = \square + \square; \quad 5 = \square - \square; \quad 17 = \square - \square$ <p>Thishela: Kumndeni wenombolo ngayinye singakha imishotinombolo yekuhlanganisa le-4 neyekususa le-4. Asibone kutsi ngabe yini lesele.</p> <p>Bhala imishotinombolo ye 17, 5 ne 22 lebeyisele.</p>	<p>Bhala 17, 5 nema 22 ebhodini.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">17</td><td style="text-align: center;">5</td><td style="text-align: center;">22</td></tr> <tr> <td colspan="2"></td><td></td></tr> <tr> <td colspan="3"></td></tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>+ tibalo</th><th>- tibalo</th></tr> </thead> <tbody> <tr> <td>$5 + 17 = 22$</td><td>$22 - 17 = 5$</td></tr> <tr> <td>$17 + 5 = 22$</td><td>$22 - 5 = 17$</td></tr> <tr> <td>$22 = 5 + 17$</td><td>$5 = 22 - 17$</td></tr> <tr> <td>$22 = 17 + 5$</td><td>$17 = 22 - 5$</td></tr> </tbody> </table>	17	5	22							+ tibalo	- tibalo	$5 + 17 = 22$	$22 - 17 = 5$	$17 + 5 = 22$	$22 - 5 = 17$	$22 = 5 + 17$	$5 = 22 - 17$	$22 = 17 + 5$	$17 = 22 - 5$
17	5	22																		
+ tibalo	- tibalo																			
$5 + 17 = 22$	$22 - 17 = 5$																			
$17 + 5 = 22$	$22 - 5 = 17$																			
$22 = 5 + 17$	$5 = 22 - 17$																			
$22 = 17 + 5$	$17 = 22 - 5$																			

Imisebenti yangamunye

Bafundzi kumele nyalo basebentise liphepha lekusebentela langamunye leliniketelwe Kwekucalisa Sifundvo 3.

Bafundzi kumele bafake imindenai yetinombolo kumdvwebo we-bha lofanele. Kumele bacondzanise emasayizi etinombolo letincane letimbili nemasayizi ema-bha lamancane.

Ividiyo yekusita

Kuchumanisa kuhlanganisa kekususa 3



<https://youtu.be/r02iTWMfP0>

Ligama:

Kuchumanisa kuhlanganisa nekususa Kwekucalisa sifundvo 3: Umsebenti wangamunye

Bhala iminden'i yetinombolo lelandzelako kumdvwebo lofanele we-bha longentasi.
Bese ubhala imishotinombolo yekuhlanganisa lemine neyekusua lemine ngakumunye umndeni wenombolo.

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

Cala nge $5 + 5 = 10$. Nguwuphi umdvwebo lohambisana ne $5 + 5$?

Caphela kutsi $5 + 5 = 10$ inemishotinombolo yekuhlanganisa lemibili neyekusua lemibili kuphela.

<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
Kuhlanganisa: <hr/> <hr/> <hr/> <hr/>			
Kususa: <hr/> <hr/> <hr/> <hr/>			

Kuchumanisa kuhlanganisa nekususa

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 4



<https://youtu.be/KPsfH209EEM>

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 4

Liminiti li-1 lekukhaliphisa ingcondvo

Dvweba umdvwebo we-bha wanobe nguyiphi inhlanganisela yetinombolo leti-3 kulokulandzelana kwetinombolo 1-20. Tibonelo letimbili tiniketiwe ngentasi. Dvweba imidvwebo ye-bha ibonakale ngalokufanako kuletinombolo.

7	3
10	

4	9
13	

Nyalo cela bafundzi kutsi bakunikete imishotinombolo leyehlukene yekuhlanganisa nekususa lesebentela umdvwebo we-bha. Njengoba bafundzi baveta imishotinombolo lengalunga, khomba tinombolo letikumdvwebo we-bha

Bani nesiciniseko sekutsi bafundzi baveta imishotinombolo yomibili lehlanganisako nalesusako:

$$\text{sib. } 7 + 3 = 10 \quad 3 + 7 = 10 \quad 10 - 3 = 7 \quad 10 - 7 = 3$$

Gcugcutela bafundzi kutsi babuye bavete imishotinombolo lapho ‘imphendvulo’ ita kucala,
 sib. $10 = 7 + 3$ $10 = 3 + 7$ $3 = 10 - 7$ $7 = 10 - 3$

Caphela: Kuhlala njalo kunemishotinombolo le-8 lengafaneleka njenge-8 lesingetulu lesisebentela ngamunye umdvwebo we-bha. Bafundzi akukameli kutsi bavete yonkhe imishotinombolo le-8 lefanelekile, kodvwa kuhle kubagcugcutela kutsi bavete lokuhlukene kwaloku.

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa kuchumana lokusemkhatsini wekuhlanganisa nekususa kute sibhale tibalo letehlukene letinesethi yetinombolo letifanako.

Bamba emalebuli lana ‘Kukhulu’ ‘Kuncane na ‘Kuncane’.	Dvweba umdvwebo we-bha longentasi ebhodini.				
Thishela: Sifundze kutsi kune-bha yi-1 Lenkhulu nema-bha la-2 Lamancane kulomndeni wenombolo. Sibite lama-bha Kukhulu, Kuncane naKuncane (phakamisela etulu emalebuli). Ngubani longangisita kulebula ema-bha kulomdvwebo we-bha?	<table border="1" style="width: 100%; height: 100px; vertical-align: top;"> <tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr> </table>				
Bita umfundzi atonamatselisa emagama macondzana nema-bha.	<table border="1" style="width: 100%; height: 100px; vertical-align: top;"> <tr><td style="width: 50%; text-align: center;">kuncani</td><td style="width: 50%; text-align: center;">kuncani</td></tr> <tr><td colspan="2" style="text-align: center;">kukhulu</td></tr> </table>	kuncani	kuncani	kukhulu	
kuncani	kuncani				
kukhulu					
Thishela: Ngifuna sigcwaliise umndeni wenombolo 15, 5 ne 10 kulomdvwebo we-bha.	15 5 10				
Bhala 15, 5 ne 10 ebhodini. Khumbuta bafundzi kutsi inombolo lenkhulu itakuya ku-bha lelebulwe Kukhulu naletinombolo letimbili letincane titakuya kuma-bha lalebulwe Kuncane. Gcwalisa tinombolo ngekusitwa bafundzi. Nangabe bantjintjanisa li-10 ne-5,	<table border="1" style="width: 100%; height: 100px; vertical-align: top;"> <tr><td style="width: 50%; text-align: center;">10</td><td style="width: 50%; text-align: center;">5</td></tr> <tr><td colspan="2" style="text-align: center;">15</td></tr> </table>	10	5	15	
10	5				
15					

<p>khumbuta bafundzi kutsi isayizi yema-bha kumele ihambisane nesayizi yenombolo.</p> <p>Thishela: Ngiphe leminye imishotinombolo yemndeni 15, 5 ne-10.</p> <p><i>Caphela: Akunasidzingo sekutsi utfole yonkhe imisho le-8 yalomndeni wenombolo. Lokufunako kubona kutsi bafundzi bayabuvisisa budlelwano lobusemkhatsini wetinombolo. Nangabe kwentiwe lokunikiwe ‘lokungemanga’ khumbuta liklasi ngemisho leliciniso nalengemanga lebayifundze emuva,</i></p> <p>sib. Kuncane – Kukhulu = Kuncane – kungemanga</p>					
<p>Inkinga: 25 – 22</p> <p>Thishela: Nangabe sizama kwenta lesibalo siya emuva ngema-22 sisuka kuma-25 loko kutawutsatsa sikhatsi lesidze. Kodvwa singadvweba umdvwebo we-bha walomndeni wenombolo kute sibe nendlela lemalula yekutfola inombolo lengekho. 25 nguKukhulu nema-22 ngukunye kwaloKuncane.</p> <p>Dweba umdvwebo we-bha bese ugcwalisa ema-22 nema-25.</p> <p>Thishela: Le-bha yincane kakhulu ngoba ema-22 nema-25 (khomba kumdvwebo) advutane kakhulu. Ngaloko-ke kutawuba melula kubuta ‘ema-22 ahlangana nani alingana nema-25?’ (khomba kumdvwebo usasho loku; bhala umusho) nobe ‘ema-25 ususe ini alingana nema-22?’ (khomba kumdvwebo; bhala umusho). Ngingatfola imphendvulo ngekusheshisa ngekubala ngikhuphuke (up ngisuka kuma-22, nobe ngekubala ngehle ngisuka ema-25).</p> <p>Bala inombolo lengekho kanye nebfundzi.</p> <p>Bhala ‘ku-3’ ku-bha lencane emabhokisini langenalutfo kumishotinombolo.</p> <p>Thishela: Nasinenombolo lengekho singabona yonkhe imisho lehlanganisako</p>	<p>25 – 22 = <input type="text"/></p> <table border="1"> <tr> <td>22</td> <td></td> </tr> <tr> <td>25</td> <td></td> </tr> </table> <p>Bhala kubala:</p> <p>$22 + \square = 25$</p> <p>$25 - \square = 22$</p> <p>Shiya umdvwebo nemisho ebhodini.</p>	22		25	
22					
25					

Kuchumanisa kuhlanganisa nekususa

nalesusako leyingakhiwa ngalomndeni wenombolo. Khumbuta bafundzi ngaleminye imisho leyingakhiwa usakhomba kuma-bha. Tishela: (ukhomba kulenkinga yakucala) Sibale ka-3 kute sitfole imphendvulo kunekubala ema-22. Singabuka kumdvwebo we-bha kute sitfole kubala lokumelula.	
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Imisebenti yangamunye

Bafundzi nyalo kumele bazame tibonelo letilandzelako ngekucala bakope umdvwebo we-bha nekugwalisa tinombolo lebatinikiwe. Bafundzi kumele babbale kubala lokusheshisako labakusebentisile kute batfole imphendvulo.

$21 - 17 = \square$

$28 - 25 = \square$

Bafundzi kumele bacambe Kukhulu naKuncane kulemibuto kute bachaze labakucabangako. Sib. "21 – 17, Ngintjintja kubala kute ngibale ngikhuphuke kusuka ku-17 kuye ema-21 ngekubala $17 + \square = 21$ " nobe "ngingantjintja kubala $21 - 17$ kute ngibale ngehle kusuka kuma-21 kuye e-17 ngekubala $21 - \square = 17$."

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 1

Niketa bafundzi Liphepha lekusebentela 1 ekupheleni kwseshini yanamuyla.

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wetenhloko labawufundzile.

Ligama:

Kuchumanisa kuhlanganisa Nekususa: Liphepha lekusebentela I

I.	$67 + \boxed{\quad} = 72$	Gcwalisa I7, 3 nema-20 kumishotinombolo lengentasi (I1-I4).
II.	$54 - 6 = \boxed{\quad}$	$\boxed{17} \quad \quad 3$ 20
III.	$78 + 7 = \boxed{\quad}$	$\boxed{\quad} - 3 = \boxed{\quad}$
IV.	$26 + \boxed{\quad} = 34$	$\boxed{\quad} + 3 = \boxed{\quad}$
V.	$99 + \boxed{\quad} = 102$	$\boxed{\quad} - \boxed{\quad} = 3$
VI.	Gcwalisa letinombolo letintsatfu emabhokisini: $13 - 8 = 5$	$3 + \boxed{\quad} = \boxed{\quad}$
VII.	$206 - 8 = \boxed{\quad}$	$198 + \boxed{\quad} = 202$
VIII.	$48 + \boxed{\quad} = 54$	$31 - \boxed{\quad} = 28$
IX.	$81 - \boxed{\quad} = 78$	$46 + 8 = \boxed{\quad}$
X.	$39 + \boxed{\quad} = 44$	$55 + \boxed{\quad} = 63$
XI.		$64 - \boxed{\quad} = 59$
XII.		$65 + \boxed{\quad} = 72$

Kuchumanisa kuhlanganisa nekususa

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngendlela yekndlulela eshumini. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa ngembi KWEKUCALISA SIFUNDVO lesilandzelako.

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 5**Liminiti li-1 lekukhaliphisa ingcondvo**

Kusebenta ngemidvwebo ye-bha

Kulandzelana kwemsebenti

Kulesifundvo sitfola tibalo letimalula letihlobene tetibalo tekuhlanganisa lapho yinye yetinombolo letihlanganisiwe ishoda.

<p>Inkinga: $6 + \square = 25$; $\square + 3 = 28$</p>	<p>Bhala tibalo bese ugcwalisa imidvwebo ye-bha lengenalutfo njengoba ukhonjisiwe:</p>								
<p>Thishela: Esifundvweni sekugcina sibonile kutsi singantjintja kubala kuchumanise melula kuhlanganisa nobe kususa kute sitfole inombolo lengekho. Buka lokubala ebhodini.</p>	$6 + \square = 25$ $\square + 3 = 28$								
<p>Dwweba imidvwebo ye-bha lengenalutfo njengoba ukhonjisiwe bese usebenta nebfundzi kwakha imidvwebo ye-bha yalokubala.</p>	<table border="1" style="display: flex; justify-content: space-around;"> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </table>								
<p>Thishela: Ngisite ngicedzele imidvwebo ye-bha yalokubala.</p>	<table border="1" style="display: flex; justify-content: space-around;"> <tr> <td style="width: 40px; height: 40px; vertical-align: top;">6</td> <td style="width: 40px; height: 40px; vertical-align: top;">3</td> </tr> <tr> <td style="width: 40px; height: 40px; vertical-align: bottom;">25</td> <td style="width: 40px; height: 40px; vertical-align: bottom;">28</td> </tr> </table>	6	3	25	28				
6	3								
25	28								
<p>Cela bafundzi kutsi bakutjele lapho ungadvweba khona imigca kuma-bha langetulu, nalapho ungabhala khona inombolo ngayinye.</p>	$25 - 6 = \square$ $28 - 3 = \square$								
<p>Thishela: Ngabe kumelula kuhendvula ema-25 ususe 6 (khomba tinombolo ku-bha) nobe ema-28 ususe ku-3 (khomba tinombolo ku-bha).</p>	<table border="1" style="display: flex; justify-content: space-around;"> <tr> <td style="width: 40px; height: 40px; vertical-align: top;">6</td> <td style="width: 40px; height: 40px; vertical-align: top;">19</td> <td style="width: 40px; height: 40px; vertical-align: top;">25</td> <td style="width: 40px; height: 40px; vertical-align: top;">3</td> </tr> <tr> <td style="width: 40px; height: 40px; vertical-align: bottom;">25</td> <td style="width: 40px; height: 40px; vertical-align: bottom;">28</td> <td style="width: 40px; height: 40px; vertical-align: bottom;"></td> <td style="width: 40px; height: 40px; vertical-align: bottom;"></td> </tr> </table>	6	19	25	3	25	28		
6	19	25	3						
25	28								
<p>Bala letibalo nebfundzi, usebentisa kndlulela eshumini lapho kudzingeka khona sib. $25 - 5$ ngema-20 kantsi $20 - 1$ enta 19, ngaloko-ke $25 - 6 = 19$.</p>	$25 - 6 = 19$ $28 - 3 = 25$								
<p>Bhala timphendvulo kuma-bha langenalutfo nemabhokisi langenalutfo njengoba ukhonjisiwe. Bese ugcwalisa imishotinombolo yakucala.</p>	\downarrow \downarrow								
<p>Thishela: Sitfole kumelula kusombulula kubala kwekuhlanganisa ngekutintjintja kube kubala kwekususa.</p>	$6 + 19 = 25$ $25 + 3 = 28$								
<p>Thishela: Sibonile kutsi nasinetibalo letilukhuni letihlanganisako nobe letisusako singabona kutsi ayikho yini indlela yekutintjintja kutsi tibe melula. Kepha angeke sitintjintjele kunobe ngukuphi kubala.</p>	<p>Ngingantjintja yini...?</p> <p>$6 + \square = 25$ abe $\square - 6 = 25$</p>								

Kuchumanisa kuhlanganisa nekususa

<p>Thishela: Ngingantjintja yini $6 + \square = 25$ abe $\square - 6 = 25$?</p> <p>Bhala sibalo ebhodini. Tjela bafundzi kutsi imishotinombolo kumele ichumane ngekwemcondvo Kukhulu, Kuncane, Kuncane kumdvwebo we-bha.</p> <p>Sita bafundzi bacabange kutsi ngutiphi taletinombolo kulomusho letingalebulwa Kukhulu, Kuncane naKuncane bese bayatilebula. Khuluma kutsi ngabe 'Kuncane + Kuncane = Kukhulu' kunengcondvo nobe cha. Buta kutsi kuliciniso nobe kungemanga.</p> <p>Sita liklasi kutsi lilebule $\square - 6 = 25$ ngendlela lefanako bese likhetsa uma 'Kuncane – Kuncane = Kukhulu' kuliciniso nobe kungemanga.</p> <p>Bafundzi kumele bacondze kutsi $\square - 6 = 25$ kungemanga kulomndeni wenombolo. Ngeta kuliciniso nobe kungemanga kulemishotinombolo.</p>	$6 + \square = 25 \quad \text{kuliciniso}$ <p style="text-align: center;">↑ ↑ ↑</p> <p>Kuncane Kuncane Kukhulu</p> $\square - 6 = 25 \quad \text{ngemanga}$ <p style="text-align: center;">↑ ↑ ↑</p> <p>Kuncane Kuncane Kukhulu</p>
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Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako. Ngasinye sibonelo kumele badvwebe umdvwebo we-bha bese babbala kabusha umushotinombolo njengekubala lokumelula kute batfole inombolo lengekho. Nangabe bafundzi bahluleka, bagcugcutele kutsi balebule ema-bha njenga Kukhulu, Kuncane naKuncane.

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

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 5



<https://youtu.be/bkmaf0ArzuY>

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 6

Liminiti li-1 lekukhaliphisa ingcondvo

Kusebenta ngemidvwebo ye-bha

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa budlelwano lobusemkhatsini wekuhlanganisa nekususa kute kube malula kusombulula tibalo tekususa.

<p>Inkinga: $\square - 30 = 9$ $30 - \square = 9$</p> <p>Thishela: Esifundvweni sekugcina sibonile kutsi singantjintja kubala kuye kulokuhlanganisa nekususa lokuhlukile kute sitfole inombolo lengekho. Buka kulokubala ebhodini.</p> <p>Dwweba imidvwebo ye-bha lengenalutfo njengoba ukhonjisiwe bese usebenta nebfundzi kwakha imidvwebo ye-bha yekubala.</p> <p>Thishela: Ngisite ngicedzele imidvwebo ye-bha yaletibalo. Ngabe imidvwebo ye-bha itawufana nobe itawehluka?</p> <p>Bafundzi kumele bakhombise kutsi yehlukene.</p> <p>Kulesibonelo sekucala ($\square - 30 = 9$), lengatiwa nguKukhulu nema-30 naboKuncane laba-9.</p> <p>Kulesibonelo sesibili ($30 - \square = 9$), ema-30 aloKukhulu bese lelengatiwa naboKuncane laba-9.</p> <p>Cela bafundzi bakutjele lapho ungaadvweba khona imigca ngetulu kwema-bha, nalapho ungabhalo inombolo ngayinye. Nangabe bafundzi bahluleka, bagcugcutele kutsi balebule ema-bha kumdvwebo we-bha njenga Kukhulu, Kuncane naKuncane.</p> <p>Chubeka ubute bafundzi kutsi banake lokufanako naloko lokuhlukile kulemidvwebo ye-bha lemibili.</p> <p>Bhala kubala lokulandzelako ngaphasi kwemdvwwebo we-bha lofanele njengoba ukhonjisiwe:</p> <p>$30 + 9 = \square$ $30 - \square = 9$</p>	<p>Bhala kubala kumidvwebo ye-bha lengenalutfo njengoba ukhonjisiwe:</p> <p>$\square - 30 = 9$ $30 - \square = 9$</p> <p><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>30 9 30 9</p> <p>30 9 30 9</p> <p>$30 + 9 = \square$ $30 - \square = 9$</p>
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Kuchumanisa kuhlanganisa nekususa

Sebenta nebafundzi kute ubale timphendvulo $30 + 9$ (achunyaniswe kumdvwebo we-bha wekucala) ne $30 - 9$ (achunyaniswe kumdvwebo we-bha wesibili).

Sebenta nebafundzi kufaka tinombolo letifanele kulokubala nemidvwebo ye-bha njengobe ukhonjisiwe.

Gcwalisa imishotinombolo yakucala. Khombisa bafundzi kutsi kubala $30 + 9$ kusitile kusombulula $\square - 30 = 9$ nekutsi kubala $30 - 9$ kusitile kusombulula $30 - \square = 9$.

<table border="1"><tr><td>30</td><td>9</td></tr><tr><td>39</td><td></td></tr></table>	30	9	39		<table border="1"><tr><td>21</td><td>9</td></tr><tr><td>30</td><td></td></tr></table>	21	9	30	
30	9								
39									
21	9								
30									

$$30 + 9 = \boxed{39} \quad 30 - 9 = \boxed{21}$$

↓ ↓

$$\boxed{39} - 30 = 9 \quad 30 - \boxed{21} = 9$$

Imisebenti yangamunye

Bafundzi kumele nyalo bazame tibonelo letilandzelako ngekudvweba umdvwebo we-bha bese babbala kabusha umushotinombolo njengekubala lokumelula kute batfole inombolo lengekho:

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

Bafundzi kumele bachaze labakucabangako, sib. “ $25 - \square = 9$, ngingantjintja kubala kube $25 - 9$. Nangisusa si-9 kuma-25, ngitfola 16 ngoba $25 - 5$ usinika ema-20 nema $20 - 4 = 16$. Kusho kutsi $25 - \boxed{16} = 9$.”

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 6



<https://youtu.be/OnF8U7aBPOc>

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 7

Liminiti li-1 lekukhaliphisa ingcondvo

- Kuhlanganisa ngekusheshisa: Tinombolo letinedijithi yi-1 naletinemadijithi la-2 (Sebentisa tinombolo letinkhulu lettinganiketa timphendvulo letingetulu kwe 100 ne 200, e.g. 99 + 2; 99 + 4; 198 + 4; 199 + 3)
- Kususa ngekusheshisa: Tinombolo letinedijithi yi-1 kuletinombolo letinemadijithi la-2 (Sebentisa tinombolo letinkhulu lettinganiketa timphendvulo letingetulu kwe-100 nem-200, sib. 101 – 2; 103 – 4; 203 – 4; 201 – 3)

Kulandzelana kwemsebenti

Kulesifundvo sichumanisa kuhlanganisa nekususa kute sisombulule malula tibalo tekuhlanganisa nekususa ngetinombolo letinkhulu.

<p>Thishela: Asisebentise lesikufundzile kute sisombulule letinye tibalo letinetinombolo letinkhulu. Ungabutfola yini budlelwano lobusemkhatsini wetinombolo 105, 10 ne-95?</p>	<p>Bhala 105, 10 ne-95 ebhodini.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px;">105</td><td style="width: 50px;">10</td><td style="width: 50px;">95</td></tr> <tr> <td colspan="3"></td> </tr> <tr> <td colspan="3"></td> </tr> </table>	105	10	95							
105	10	95									
<p>Dweba umdvwebo we-bha longanalutfo njengoba ukhonjisiwe.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px;">95</td><td style="width: 50px;">10</td></tr> <tr> <td colspan="2"></td> </tr> </table>	95	10								
95	10										
<p>Thishela: Tinombolo 105, 10 ne 95 tichumene nangabe sihlanganisa sibuye sisuse. Tingacatjangwa njengemndeni wenombolo.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px;">105</td><td style="width: 50px;"></td></tr> <tr> <td colspan="2"></td> </tr> </table>	105									
105											
<p>Bafundzi baveta kuchumana lokusemkhatsini we-105, 10 ne 95 nalapho inombolo ngayinye kumele ingene khona kumdvwebo we-bha.</p> <p>Sebenta ngalokuniketwa ngumfundzi njengakucala. Rekhoda lokunkiwe lokwamukelekile ebhodini kumakholomu la-2. Ungadzinga kusita bafundzi ngaku-2 kwekugcina kukholomu ngayinye ngekusebenisa tinhlaka njenge:</p> <p>$105 = \square + \square$; $95 = \square - \square$; $10 = \square - \square$</p> <p>Thishela: Kuwo wonkhe umndeni wenombolo singenta imishotinombolo yekuhlanganisa le-4 neyekususa le-4. Asibone kutsi akukho lokusele.</p> <p>Bhala imishotinombolo ye 105, 10 ne 95 lebeyisеле ngaphandle.</p> <p>Dweba umdvwebo we-bha wangayinye inkinga. Lebula lama-bha 'Kukhulu', 'Kuncane' na 'Kuncane'.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th>+ kubala</th> <th>- kubala</th> </tr> <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> </table>	+ kubala	- kubala	$10 + 95 = 105$	$105 - 10 = 95$	$95 + 10 = 105$	$105 - 95 = 10$	$105 = 95 + 10$	$95 = 105 - 10$	$105 = 10 + 95$	$10 = 105 - 95$
+ kubala	- kubala										
$10 + 95 = 105$	$105 - 10 = 95$										
$95 + 10 = 105$	$105 - 95 = 10$										
$105 = 95 + 10$	$95 = 105 - 10$										
$105 = 10 + 95$	$10 = 105 - 95$										

Kuchumanisa kuhlanganisa nekususa

Tfola i-bha lengekho bese ubhala imphendvulo ebhlokini. 101 – 98 = <input type="text"/> <input type="text"/> – 99 = 4 <input type="text"/> + 2 = 201	
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Imisebenti yangamunye

Bafundzi nyalo bangazama tibonelo letilandzelako ngekuncuma kutsi nguyiphi inombolo Lenkhulu nekutsi ngutiphi leTincane, udvweba umdvwebo we-bha bese uniketa sisombululo senombolo lengekho.

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

Bafundzi kumele bachaze loku labakucabangako.

Umsebenti wekuya nawo ekhaya: Liphepha lekusebentela 2

Niketa bafundzi Liphepha lekusebentela 2 ekupheleni kwseshini yanamuyla.

Ungabakaleli sikhatsi nangabe bafundzi benta lomsebenti. Injongo kuniketa bafundzi litfuba lekubhala batilolonge ngemsebenti wetenhloko labawufundzile.

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 7



<https://youtu.be/vlFAjz8cKMQ>

Ligama:

Kuchumanisa kuhlanganisa nekususa: Liphepha lekusebentela 2

1. $72 - 67 =$ <input type="text"/>	4. $94 - 88 =$ <input type="text"/>						
2. $4 +$ <input type="text"/> $= 303$	5. $302 - 298 =$ <input type="text"/>						
3. <input type="text"/> $- 63 = 6$	6. <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td>98</td></tr><tr><td colspan="2"></td><td>103</td></tr></table>	<input type="text"/>	<input type="text"/>	98			103
<input type="text"/>	<input type="text"/>	98					
		103					
$61 + 27 = 88$ $34 + 27 = 61$							
7. $61 - 27 =$ <input type="text"/>							
$36 + 25 = 61$ $61 + 36 = 97$							
8. <input type="text"/> $+ 36 = 61$							
<p>Sebentisa tinombolo letintsatfu letingentasi ngetibalo letimbili tekususa letehlukene:</p> $78 + 52 = 130$							
9. <input type="text"/> - <input type="text"/> = <input type="text"/>							
10. <input type="text"/> - <input type="text"/> = <input type="text"/>							

Kuchumanisa kuhlanganisa nekususa

Emanotsi athishela

Lapha ungenta emanotsi ngesifundvo nalapho bafundzi basadzinga lusito ngemasu ekubala lahlukene. Ungabuye wente emanotsi anobe ngabe yini lofuna kuyindlulisa kulokwekucalisa sifundvo lesilandzelako.

KUCHUMANISA KUHLANGANISA NEKUSUSA: KWEKUCALISA SIFUNDVO 8

Liminiti li-1 lekukhaliphisa ingcondvo

- a. Kuhlanganisa ngekusheshisa: Tinombolo letinedijithi yi-1 naletinemadijithi la-2
- b. Kususa ngekusheshisa: Tinombolo letinedijithi yi-1 kuletinombolo letinemadijithi la-2

Kulandzelana kwemsebenti

Kulesifundvo sisebentisa budlelwano lobusemkhatsini wekuhlanganisa nekususa kute sisombulule tinkinga ungekho umdvwebo we-bha.

<p>Bhala kubala lokukhonjiswe ebhodini. Shiya sikhala ngaphasi kwekubala ngakunye kute ubhale buhlobo bekubala uhlanganisa nobe ususa.</p> <p>Bafundzi kumele bazame kucabanga umdvwebo we-bha wangakunye kubala. Nangabe bahluleka ungadvweba umdvwebo we-bha ngaphasi kwekubala.</p> <p>Tibonelo tiniketiwe ngentasi kwekutsi ungakwenta njani kubala kwekucala lokutsatfu.</p>	$\square + 3 = 28$ $\square - 37 = 6$ $202 - 198 = \square$ $2 + \square = 51$ $22 - \square = 3$
<p>Thishela: Lomsebenti ungafundwa kanje: Ini ahangene naku-3 alingana nema-28? Ungakuntjintja njani lokubala kute kube malula kutfola inombolo lengekho?</p> <p>Bafundzi: $28 - 3$</p> <p>Rekhoda lokubala ngaphasi kwaloku kwekucala.</p> <p>Thishela: Ngaloko-ke itsini imphendvulo?</p> <p>Bafundzi: 25</p> <p>Bafundzi bangabala behle nabangati (27, 26, 25, ngaloko-ke; imphendvulo gema-25).</p>	$\square + 3 = 28$ $28 - 3 = \square$
<p>Thishela: Lomsebenti ungafundwa njenge: Ini ususe ema-37 kulingana ne-6? Ungakuntjintja njani lokubala kute kube malula kutfola inombolo lengekho?</p> <p>Bafundzi: $6 + 37$ (nobe $37 + 6$)</p> <p>Bhala lokubala ngaphasi kwaloku kwekucala.</p> <p>Thishela: Ngaloko-ke itsini imphendvulo?</p> <p>Bafundzi: 43</p> <p>Bafundzi bangabala baye etulu kusuka kuma-37 (38, 39, 40, 41, 42, 43, ngaloko-ke imphendvulo ngema-43). Letinye tingandlulela eshumini ($37 + 3 = 40$ ne $40 + 3 = 43$).</p>	$\square - 37 = 6$ $6 + 37 = \square$ nobe $37 + 6 = \square$

Kuchumanisa kuhlanganisa nekususa

<p>Thishela: Lomsebenti ufunu usombulule ema-202 ususe li-198. Ungakuntijintja njani lokubala kute kube malula kutfola imphendvulo?</p> <p>Bafundzi: $198 + \square = 202$</p> <p>Bhala lokubala ngaphasi kwalokwekucala.</p> <p>Thishela: Ngaloko iyini imphendvulo?</p> <p>Bafundzi: 4</p> <p>Bafundzi bangabala bakhuphuke kusuka e-198 (199, 200, 201, 202; ngaloko-ke imphendvulo ngu-4). Labanye bangandlulela eshumini ($198 + 2 = 200$; $200 + 2 = 202$, ngaloko-ke imphendvulo ngu-4).</p>	<p>202 – 198 \square</p> <p>$198 + \square = 202$</p>
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Imisebenti yangamunye

Bafundzi nyalo bangasebentisa lisu lekugucula tibalo tekuhlanganisa tisuse, netibalo tekususa tihlanganise, letingucuko tenta kube malula kutfola tinombolo letingekho.

$$4 + \square = 105$$

$$\square + 5 = 69$$

$$\square - 29 = 2$$

$$41 - 36 = \square$$

Ividiyo yekusita

Kuchumanisa kuhlanganisa nekususa 8



<https://youtu.be/nYoOex4bibI>

Ligama:

Kuchumanisa kuhlanganisa nekususa: Ngemuva kwesivivinyo

INCENYE YEKUCALA

Emaminithi lama-2 alelikhasi

1. $76 + \boxed{\quad} = 82$

Gcwalisa 16, 4 nema 20
kumushotinombolo longentasi (16 - 14).

16	4
20	

2. $42 - 4 = \boxed{\quad}$

11. $\boxed{\quad} - 4 = \boxed{\quad}$

3. $86 + 5 = \boxed{\quad}$

12. $\boxed{\quad} + 4 = \boxed{\quad}$

4. $17 + \boxed{\quad} = 23$

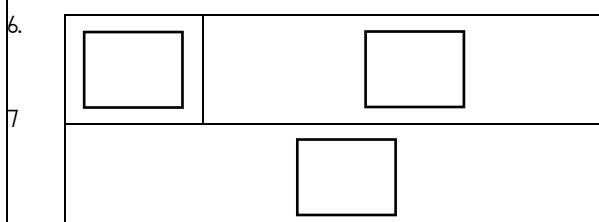
13. $\boxed{\quad} - \boxed{\quad} = 4$

5. $199 + \boxed{\quad} = 201$

14. $4 + \boxed{\quad} = \boxed{\quad}$

Gcwalisa letinombolo letintsatfu emabhokisini: 11 - 9 = 2.

15. $99 + \boxed{\quad} = 102$



16. $21 - \boxed{\quad} = 19$

8. $302 - 5 = \boxed{\quad}$

18. $27 + \boxed{\quad} = 35$

9. $29 + \boxed{\quad} = 34$

19. $34 - \boxed{\quad} = 29$

10. $91 - \boxed{\quad} = 89$

20. $75 + \boxed{\quad} = 82$

Samba: 20

Kuchumanisa kuhlanganisa nekususa: Ngemuva kwesivivinyo

INCENYE YESIBILI

Emaminithi lama-3 alekhasi

1.	$73 - 68 = \boxed{}$				
2.	$6 + \boxed{} = 303$				
3.	$\boxed{} - 82 = 5$				
4.	$82 - 75 = \boxed{}$				
5.	$201 - 199 = \boxed{}$				
6.	<table border="1" style="width: 100%; height: 100px;"> <tr> <td style="width: 20%; height: 50%;"><input type="text"/></td> <td style="width: 80%; height: 50%; text-align: center;">qq</td> </tr> <tr> <td colspan="2" style="height: 50%; text-align: center;">102</td> </tr> </table>	<input type="text"/>	qq	102	
<input type="text"/>	qq				
102					
	$42 + 15 = 57$ $27 + 15 = 42$				
7.	$42 - 15 = \boxed{}$				
	$42 + 24 = 66$ $24 + 18 = 42$				
8.	<input type="text"/> + 24 = 42				
Sebentisa letinombolo letintsatfu lettingentasi ubale ngetindlela letimbili tekususa:					
$67 + 53 = 120$					
9.	<input type="text"/> - <input type="text"/> = <input type="text"/>				
10.	<input type="text"/> - <input type="text"/> = <input type="text"/>				
Samba: 10					

Kundlulela eshumini: Imemorandamu			
Ngembí kwesivivinyo	Liphepha lekusebentela 2	Liphepha lekusebentela 2	Ngemuva kwesivivinyo
INCENYE YEKUCALA			INCENYE YEKUCALA
1. 10	1. 10	1. 53	1. 10
2. 10	2. 10	2. 48	2. 10
3. 3	3. 3	3. 8	3. 3
4. 2	4. 7	4. 8	4. 2
5. 8	5. 9	5. 1	5. 8
6. 10	6. 10	6. 3	6. 10
7. 5	7. 5	7. 29	7. 5
8. 6	8. 2	8. 7	8. 7
9. 10	9. 10	9. 3; 44	9. 10
10. 0	10. 6	10. 53; 5	10. 0
11. 56	11. 2		11. 57
12. 63	12. 5		12. 63
13. 33	13. 56		13. 33
14. 48	14. 54		14. 48
15. 50	15. 22		15. 50
16. 127	16. 1		16. 127
17. 30	17. 26		17. 30
18. 43	18. 44		18. 42
19. 3	19. 56		19. 3
20. 7	20. 53		20. 7
INCENYE YESIBILI	21. 40		INCENYE YESIBILI
1. 64	22. 20		1. 74
2. 79	23. 6		2. 78
3. 86	24. 33		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

Memoranda

Emasu ekubala uzuba: Imemorandamu			
Ngembí kwesivivinyo	Liphepha lekusebentela 1	Liphepha lekusebentela 2	Ngemuva kwesivivinyo
INCENYE YEKUCALA	1. 65	1. 76	INCENYE YEKUCALA
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
INCENYE YESIBILI			INCENYE YESIBILI
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

Kuphindza kibili nekuhhafula: Imemorandamu				
Ngembí kwesivivinyo	Kwekulisa sifundvo 1	Liphepha lekusebentela 1	Liphepha lekusebentela 2	Ngemuva kwesivivinyo
INCENYE YEKUCALA 1. 12	1. Phindza kibili 4 si-8 Emagcogco lamabili a- 4 ne 8	1. 12 2. 6 3. 18 4. 16 5. 6 6. 8 7. 20 8. 7 9. 5 10. 9 11. 30 12. 14 13. 14 14. 200 15. 40 16. 80 17. 25 18. 8 19. 15 20. 120	1. 64 2. 52 3. 21 4. 55 5. 46 6. 18 7. 62 8. 31 9. 63 10. 2 11. 88 12. 76 13. 43 14. 52 15. 78 16. 24 17. 98 18. 49 19. 97 20. 2	INCENYE YEKUCALA 1. 14 2. 7 3. 18 4. 16 5. 7 6. 8 7. 20 8. 6 9. 5 10. 9 11. 28 12. 14 13. 14 14. 200 15. 40 16. 80 17. 25 18. 9 19. 15 20. 120
INCENYE YESIBILI 1. 84	4. Ihafu ye 20 li-10 Hlukanisa 20 nga-2 sitfola li-10			INCENYE YESIBILI 1. 84
2. 72				2. 72
3. 32	20 ahlukaniswe nga-2 li-10			3. 32
4. 51				4. 51
5. 94	20 ÷ 2 = 10			5. 94
6. 19				6. 19
7. 104	5. Lokukhetfwe ngumfundzi			7. 104
8. 39				8. 39
9. 77	6. Lokukhetfwe ngumfundzi			9. 77
10. 2				10. 2

Memoranda

Kusondzeta nekulungisa: Imemorandamu			
Ngembikwesivivinyo	Liphepha lekusebentela 1	Liphepha lekusebentela 2	Ngemuva kwesivivinyo
INCENYE YEKUCALA			
1. 53	1. 86	1. 85	INCENYE YEKUCALA
2. 39	2. 47	2. 16	1. 54
3. 47	3. 29	3. 82	2. 39
4. 49	4. 69	4. 226	3. 47
5. 117	5. 97	5. 144	4. 49
6. 83	6. 40	6. 9	5. 148
7. 30	7. 2	7. 2	6. 83
8. 3	8. 1	8. 30	7. 30
9. 3	9. 400	9. 40	8. 3
10. 2	10. umushotinombolo wekucala	10. 80 – 40 + 1	9. 3
11. 71	11. 18		10. 2
12. 78	12. 31		11. 31
13. 41	13. 56		12. 78
14. 175	14. 165		13. 41
15. 37	15. 40		14. 175
16. 50	16. 20		15. 37
17. 1	17. 2		16. 50
18. 100	18. 1		17. 1
19. 200	19. 3		18. 100
20. 2	20. umushotinombolo wesibili		19. 200
INCENYE YESIBILI			20. 2
1. 63			INCENYE YESIBILI
2. 45			1. 53
3. 125			2. 25
4. 135			3. 125
5. 294			4. 135
6. 9			5. 294
7. 2			6. 9
8. 30			7. 2
9. 40			8. 30
10. 80 – 60 + 1			9. 40
			10. 60 – 30 + 1

Kuhlela kabusha: Imemorandamu			
Ngembikwesivivinyo	Liphepha lekusebentela 1	Liphepha lekusebentela 2	Ngemuvakwesivivinyo
INCENYE	1. 8 ne-2	1. 102	INCENYE
YEKUCALA	2. 4 ne-6	2. 57	YEKUCALA
1. 7 ne-3			1. 7 ne-3
2. 4 ne-6	3. 2	3. 300	2. 4 ne-6
3. 4	4. 20	4. 83	3. 3
4. 20	5. 36 nema-64	5. 196	4. 20
5. 30 nema-70	6. 45 nema-55	6. 90	5. 30 nema-70
6. 51 nema-49	7. 12	7. 3	6. 51 nema-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 nema-26	10. 86
11. 114	12. 12	12. 2 ne-5	11. 132
12. 10			12. 10
13. 8 ne 12	13. 9 nema-21		13. 8 ne-12
14. 4 ne 16	14. 17 ne 13		14. 4 ne 16
15. 100	15. 120		15. 100
16. 9	16. 8		16. 9
17. 18 ne-12	17. 14 ne-6		17. 18 ne-12
18. 14 ne-16	18. 12 ne-8		18. 14 ne-16
19. 31	19. 13		19. 31
20. 40	20. 40		20. 40
INCENYE YESIBILI			INCENYE YESIBILI
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 ne-12			10. 36 ne-14

Memoranda

Khuchumanisa kuhlanganisa nekususa: Imemorandamu			
Ngembí kwasivivinyo	Liphepha Iekusebentela 1	Liphepha Iekusebentela 2	Ngemuva kwasivivinyo
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 kahle) ne 13	6. 5	6. 2 ne-9
7. 11	kubhloki lengentasi	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	*Timphevulo tingantjintjana.	11. 20 – 4 = 16
12. 15 + 5 = 20	11. 20 – 3 = 17		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	17. 54		18. 8
19. 5	18. 8		19. 5
20. 7	19. 5		20. 7
INCENYE YESIBILI	20. 7		INCENYE YESIBILI
1. 4			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*
* Timphevulo tingantjintjana.			*Timphevulo tingantjintjana.

Kuchumanisa kuhlanganisa nekususa Kwekucalisa sifundvo 1: Umsebenti wangamunye

$3 + 6 = 9$ ✓	$6 - 3 = 9$ ✗
$9 = 6 + 3$ ✓	$9 - 3 = 6$ ✓
$6 + 9 = 3$ ✗	$3 = 9 - 6$ ✓
$6 + 3 = 9$ ✓	$9 - 6 = 3$ ✓
$3 + 9 = 6$ ✗	$3 - 6 = 9$ ✗

Kuchumanisa kuhlanganisa nekususa Kwekucalisa Sifundvo 3: Umsebenti wangamunye

Bhala iminden'i yetinombolo lelandzelako kumdvwebo we-bha lofanele longentasi.

Bhala umushotinombolo lohlanganisako nalousako wangamunye umndeni wetinombolo.

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

<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>2</td><td>7</td></tr> <tr> <td colspan="2" style="text-align: center;">9</td></tr> </table> <p>Kuhlanganisa:</p> $2 + 7 = 9$ $7 + 2 = 9$ $9 = 2 + 7$ $9 = 7 + 2$ <p>Kususa:</p> $9 - 2 = 7$ $9 - 7 = 2$ $7 = 9 - 2$ $2 = 9 - 7$	2	7	9		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>11</td><td>1</td></tr> <tr> <td colspan="2" style="text-align: center;">12</td></tr> </table> <p>Kuhlanganisa:</p> $11 + 1 = 12$ $1 + 11 = 12$ $12 = 1 + 11$ $12 = 11 + 1$ <p>Kususa :</p> $12 - 1 = 11$ $12 - 11 = 1$ $11 = 12 - 1$ $1 = 12 - 11$	11	1	12		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>3</td><td>4</td></tr> <tr> <td colspan="2" style="text-align: center;">7</td></tr> </table> <p>Kuhlanganisa:</p> $3 + 4 = 7$ $4 + 3 = 7$ $7 = 3 + 4$ $7 = 4 + 3$ <p>Kususa :</p> $7 - 4 = 3$ $7 - 3 = 4$ $4 = 7 - 3$ $3 = 7 - 4$	3	4	7		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>5</td><td>5</td></tr> <tr> <td colspan="2" style="text-align: center;">10</td></tr> </table> <p>Kuhlanganisa:</p> $5 + 5 = 10$ $10 = 5 + 5$ <p>Kususa :</p> $10 - 5 = 5$ $5 = 10 - 5$	5	5	10	
2	7																		
9																			
11	1																		
12																			
3	4																		
7																			
5	5																		
10																			

