



Mrs Angie Motshekga,
Minister of Basic
Education



Mr Enver Surty,
Deputy Minister
of Basic Education

These workbooks have been developed for the children of South Africa under the leadership of the Minister of Basic Education, Mrs Angie Motshekga, and the Deputy Minister of Basic Education, Mr Enver Surty.

The Rainbow Workbooks form part of the Department of Basic Education's range of interventions aimed at improving the performance of South African learners. As one of the priorities of the Government's Plan of Action, this project has been made possible by the generous funding of the National Treasury. This has enabled the Department to make these workbooks available at no cost.

We hope that teachers will find these workbooks useful in their everyday teaching and in ensuring that their learners cover the curriculum. We have taken care to guide the teacher through each of the activities by the inclusion of icons that indicate what it is that the learner should do.

We sincerely hope that children will enjoy working through the book as they grow and learn, and that you, the teacher, will share their pleasure.

We wish you and your learners every success in using these workbooks.

MATHEMATICS IN ENGLISH – Grade 3 Book 1

ISBN 978-1-4315-0004-8

Revised and
CAPS aligned

Grade 3

Name:

Class:



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ISBN 978-1-4315-0004-8



MATHEMATICS IN ENGLISH
GRADE 3 – BOOK 1
TERMS 1 & 2
ISBN 978-1-4315-0004-8
**THIS BOOK MAY
NOT BE SOLD.**

Published by the Department of Basic Education
222 Struben Street

Pretoria
South Africa

© Department of Basic Education
Sixth edition 2016

Author team: Smith, P., Blom, L., Aitchison, J.J.W.

The Department of Basic Education has made every effort to trace copyright holders but if any have been inadvertently overlooked, the Department will be pleased to make the necessary arrangements at the first opportunity.



MATHEMATICS IN ENGLISH

Book 1
Terms 1 & 2

Contents

No.	Title	Pg.	No.	Title	Pg.
1	Count, sort and show!	2	33	Target 200	76
2	Clever counting	4	34	Working with groups of numbers	78
3a	Numbers on a hundred board	6	35a	Putting tens together and taking them apart	80
3b	Numbers on a hundred board (continued)	8	35b	Putting tens together and taking them apart (continued)	82
4	Place value	10	36	A visit to the dentist	84
5	Addition and subtraction	12	37a	Add and combine	86
6	Doubles and halves	14	37b	Add and combine (continued)	88
7	Fractions	16	38	Solve it!	90
8	Sorting money	18	39	Count and calculate	92
9	Patterns	20	40	Measuring in centimetres	94
10	Balls, boxes and cylinders	22	41	Target 300	96
11	Draw, name and compare 2D shapes	24	42	Adding and subtracting with 100s	98
12	Time passes	26	43	Target 400	100
13	Measuring length	28	44	Weighing in	102
14	Capacity	30	45	Target 500	104
15	Working with mass	32	46	More adding and subtracting	106
16	Data handling	34	47	Sharpen your skills	108
17	Compare and order numbers	36	48	Symmetry	110
18	Place value to 99	38	49	Building up to 500	112
19	Putting tens together when we add to 99	40	50	Multiplication and division (10)	114
20a	Add on a number line	42	51	Count in 2s	116
20b	Add on a number line (continued)	44	52	Pave with tiles	118
21a	Subtract on a number line	46	53	Using fives	120
21b	Subtract on a number line (continued)	48	54	Working with time	122
22	It's party time	50	55	Count in 3s and 4s	124
23	Counting up to 200	52	56	Count in 50s	126
24	Practice with 5s	54	57	Fractions: halves and quarters	128
25a	Count in 2s	56	58	Fractions: halves, thirds and sixths	130
25b	Count in 2s (continued)	58	59	Fractions: fifths	132
26	Money then and now	60	60	3D objects	134
27	Count in 3s	62	61	Double and half	136
28	What comes in 4s?	64	62	More double and halving	138
29	Patterns in numbers	66	63	Group and combine	140
30a	Division	68	64	Maths fun	142
30b	Division (continued)	70		Cut-out 1	
31	Fractions	72		Cut-out 2	
32	It's about time	74			



A BILL OF RESPONSIBILITIES

FOR THE YOUTH OF SOUTH AFRICA

Preamble:

I accept the call to responsibility that comes with the many rights and freedoms that I have been privileged to inherit from the sacrifice and suffering of those who came before me. I appreciate that the rights enshrined in the Constitution of the Republic of South Africa are inseparable from my duties and responsibilities to others. Therefore I accept that with every right comes a set of responsibilities.

MY RESPONSIBILITY IN ENSURING THE RIGHT...



South Africa is a diverse nation, and equality does not mean uniformity, or that we are all the same.

Our country's motto: !KE E: /XARRA // KE, meaning "Diverse people unite", calls on all of us to build a common sense of belonging and national pride, celebrating the very diversity which makes us who we are. It also calls on us to extend our friendship and warmth to all nations and all the peoples of the world in our endeavour to build a better world.



TO LIVE IN A SAFE ENVIRONMENT

- promote sustainable development, and the conservation and preservation of the natural environment.
- protect animal and plant-life, as well as the responsibility to prevent pollution.
- not to litter, and to ensure that our homes, schools, streets and other public places are kept neat and tidy.
- in the context of climate change, we are also obliged to ensure we do not waste scarce resources like water and electricity.



TO FREEDOM OF RELIGION, BELIEF AND OPINION

- allow others to choose and practise the religion of their choice, and to hold their own beliefs and opinions, without fear or prejudice.
- respect the beliefs and opinions of others, and their right to express these, even when we may strongly disagree with these beliefs and opinions. That is what it means to be a free democracy.



TO FAMILY OR PARENTAL CARE

- honour and respect my parents, and to help them.
- to be kind and loyal to my family, to my brothers and sisters, my grandparents and all my relatives.
- recognise that love means long-term commitment, and the responsibility to establish strong and loving families.

TO HUMAN DIGNITY

- treat people with reverence, respect and dignity as we all belong to the human race.
- to be kind, compassionate and sensitive to every human being, including greeting them warmly and speaking to them courteously.

TO WORK

- work hard and do our best in everything we do.
- recognise that living a good and successful life involves hard work, and that anything worthwhile only comes with effort.
- this right must never be used for exploitation by exposing children to child labour.

TO FREEDOM AND SECURITY OF THE PERSON

- not hurt, bully or intimidate others or allow others to do so.
- solve any conflict in a peaceful manner.
- to take action to protect my safety and the safety of others.

TO EQUALITY

- treat every person equally and fairly.
- not to discriminate unfairly against anyone on the basis of race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, class, language or birth.

TO OWN PROPERTY

- respect the property of others.
- take pride in and protect both private and public property, and not to take what belongs to others.
- give generously to charity and good causes, where I am able to do so.

TO FREEDOM OF EXPRESSION

- express views which do not advocate hatred, or are based on prejudices with regard to race, ethnicity, gender or religion.
- we must therefore take responsibility to ensure this right is not abused by ourselves or others, to not tell or spread lies, and to ensure others are not insulted or have their feelings hurt.

TO CITIZENSHIP

- to participate actively in the activities of the community and affairs of the country.
- obey the laws of our country, ensuring that others do so as well.
- contribute in every possible way to making South Africa a great country.

TO LIFE

- protect and defend the lives of others.
- not endanger the lives of others by carrying dangerous weapons or by acting recklessly or disobeying our rules and laws.
- live a healthy life, by exercising, eating correctly, by not smoking, taking alcohol, or taking drugs, or indulging in irresponsible behaviour that may result in my being infected or infecting others with diseases such as HIV and AIDS.

AND CONCURRENTLY PLACES ON MY PARENTS AND CAREGIVERS THE RESPONSIBILITY TO:

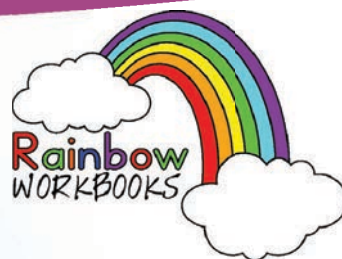
AND PLACES ON MY TEACHERS THE RESPONSIBILITY TO:

- ensure that I attend school and receive their support.
- ensure that I participate in school activities.
- create a home environment conducive to studying.

Conclusion: I accept the call of this Bill of Responsibilities, and commit to taking my rightful place as an active, responsible citizen of South Africa. By assuming these responsibilities I will contribute to building the kind of society which will make me proud to be a South African.

This Bill outlines the responsibilities that flow from each of the rights enshrined in the Constitution of the Republic of South Africa.

Grade 3



M a t h e m a t i c s

IN ENGLISH

This book belongs to:



ENGLISH

Book





Date:



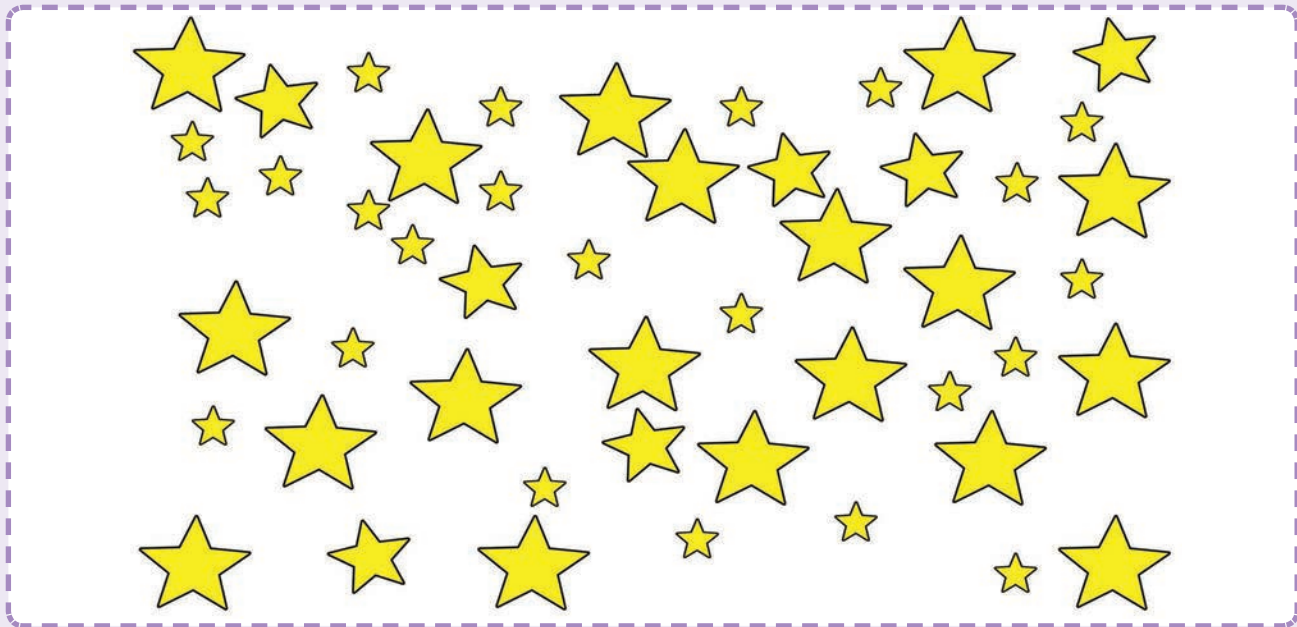
Term 1

Count, sort and show!



How many stars?

Compare answers.



Estimate how many stars. _____

Now count them. _____



Find the winner!

Who made the best estimate?

Fill in your names and answers in this table.

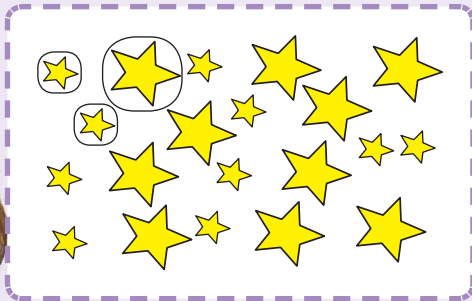
Name				
Estimate				
Number counted				
Difference between your estimate and your count				



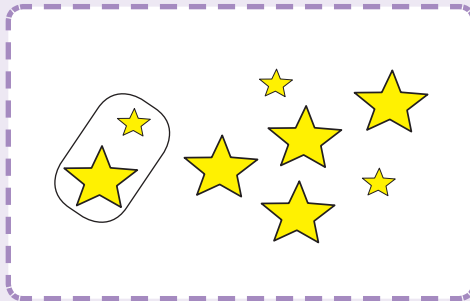
Ways to count. Help us to write it down.



I counted
in ones.



1, 2, 3, _____

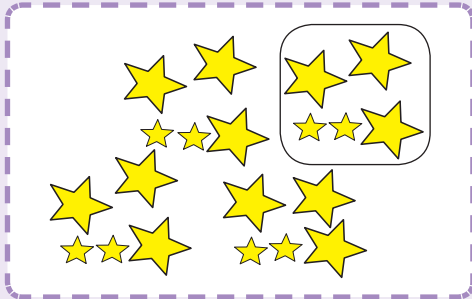


2, _____

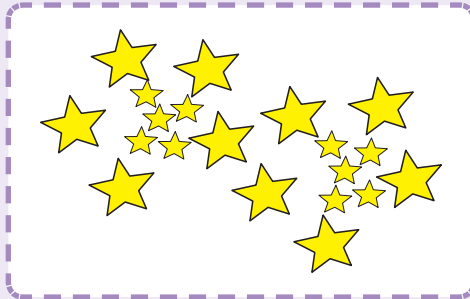
I counted
in twos.



I counted
in fives.



5, _____



I counted
in tens.



Write number sentences

Count the total number of big and small stars in the picture on page 2.

Write them in two ways.

Big Small like this

or

like this



and as a number sentence.

_____ + _____ = _____ or _____ + _____ = _____

When you add any two numbers it does not matter what their order is.



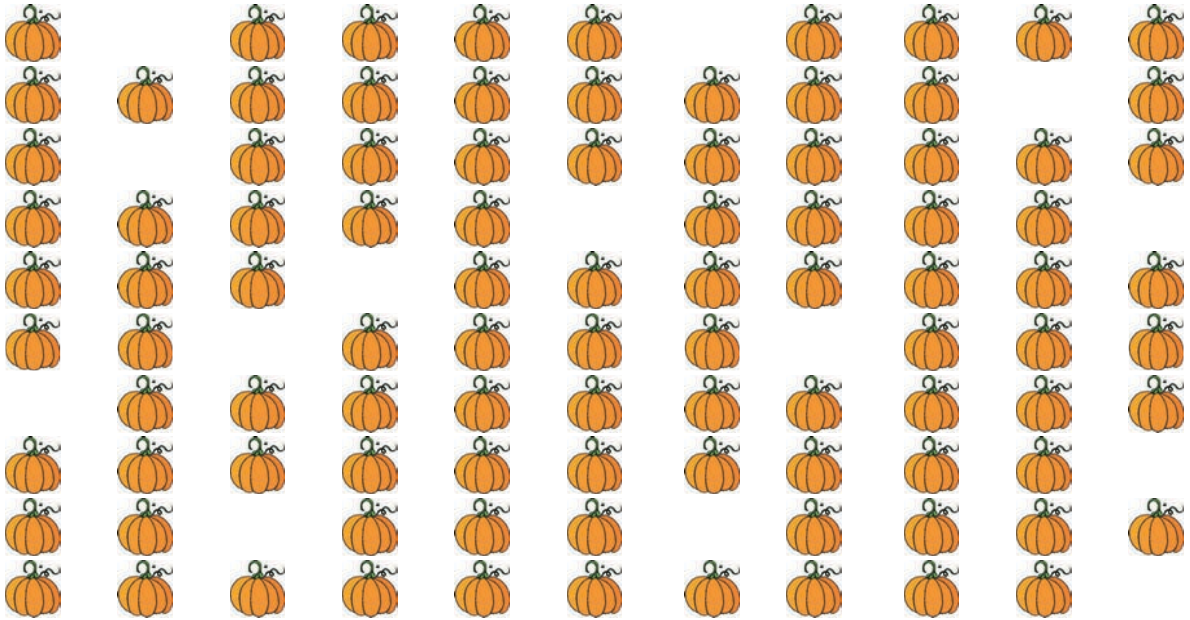
Teacher:
Sign:
Date:



Clever counting

Counting the pumpkins

Find an easy way to count them.



Answer: _____



Packing the pumpkins

Ten pumpkins go in one bag.



How many bags can you fill with the pumpkins? _____

How many pumpkins are left over? _____

How many more pumpkins are needed to fill one more bag? _____



From + to \times (addition to multiplication)

Complete the number sentences.

Example:

$$10 + 10 + 10 + 10 = 40 \Rightarrow 4 \text{ groups of } 10 = 40 \Rightarrow 4 \times 10 = 40$$



a. $10 + 10 + 10 =$ _____

_____ groups of 10 = _____ \Rightarrow _____ \times _____ = _____



b. $10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 =$ _____

_____ groups of 10 = _____ \Rightarrow _____ \times _____ = _____



Hands and fingers



How many hands? _____

How many fingers? _____

Write your answer in 2 ways.

_____ groups of 10 = _____

and

_____ \times 10 = _____



Teacher: _____
Sign: _____
Date: _____

Numbers on a hundred board



Talking numbers

Count and say all the numbers from 1 to 100. Point as you go.

1	2	3	4	5	6		8	9	10
11									
						27			
			34						40
41									
				55					
		63							
71									
					86				
			94						100



- Write the missing number in each blue block.
- Write in the other numbers.
- What kind of numbers are the yellow numbers?



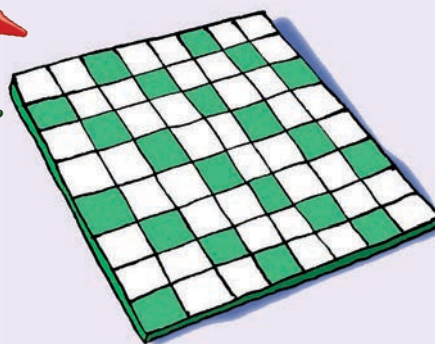
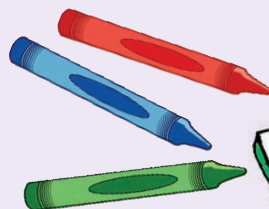
Write the numbers in words.

90	ninety	41	
77		56	
14		65	



Counting and colouring

Get ready to count a colour!



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Count and colour the 10s.

Count in 10s from
10 to 100.

Write the 10s from
10 to 100.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Count and colour the 5s
from 0 to 100.

Count in 5s from
5 to 100.

Write the 5s from
5 to 80.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Count and colour the 2s.

Count in 2s from
2 to 100.

Write the 2s from
2 to 100.



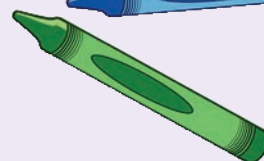
Teacher: _____
Sign: _____
Date: _____

Numbers on a hundred board (continued)



Looking for patterns

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Tick (✓) all the 10s

Cross (X) the 5s

Circle (O) the 2s

Write the numbers that are in both the 2s and the 5s pattern.



Counting patterns

Fill in the missing numbers.

0; 10; 20; ____; ____; 50; ____; ____; 80; ____; 100; ____;
____; 130; ____; ____; 160; ____; ____; ____; 200

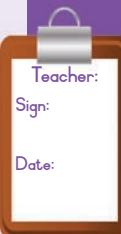
0; 5; 10; ____; ____; 25; ____; ____; 40; ____; 50; 55; ____;
____; 70; ____; ____; 85; ____; ____; 100

0; 2; 4; 6; ____; ____; 12; ____; ____; 18; ____; 22; 24; ____;
____; 30; ____; ____; 36; 38; ____; ____; ____; 46; ____;

0; ____; 8; ____; 16; 20; ____; 28; ____; 36; ____; ____;
____; 52; ____; ____; 64; ____; 72; ____; 80

0; ____; 10; ____; 20; ____; 30; ____; 40; ____; ____; 55;
60; ____; 70; 75; ____; 85; ____; ____; 100

0; 3; ____; 9; ____; 15; 18; ____; 24; ____; ____; 33; ____; 39;
____; 45; ____; ____; 54; 57; ____; 63; ____; ____; 72; 75





Date:

Place value



Showing your numbers

Cut out the number cards from Cut-out sheet 1.

Use the cards to build these numbers.

19

43

69

54

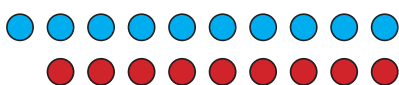
35

10

9



19

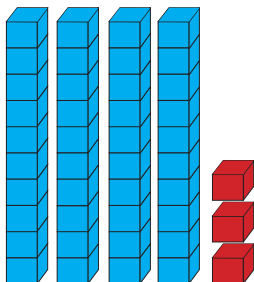


10

9

$$10 + 9 = 19$$

43



10

10

10

10

3

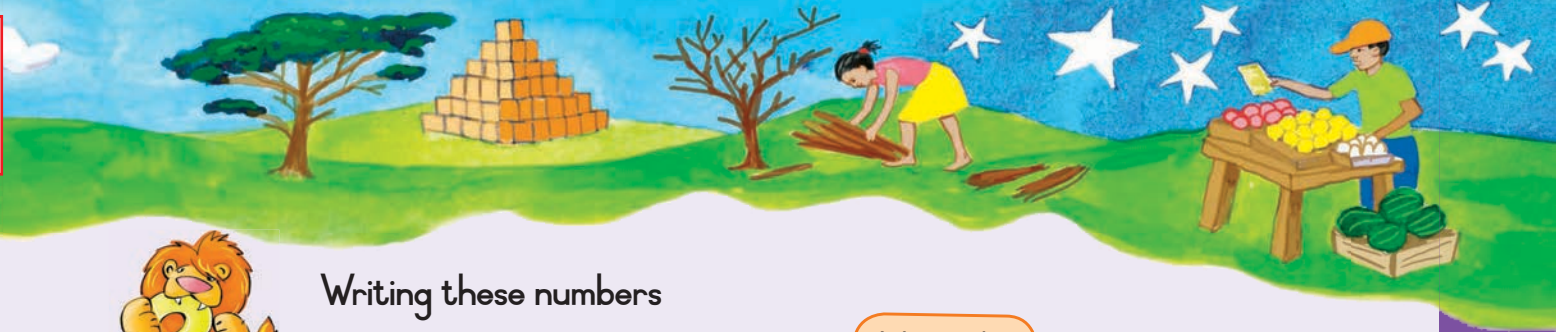
$$40 + 3 = 43$$

Now do it yourself for these numbers using Cut-out 1.

54

35

69



Writing these numbers

We have done the first one for you.

We can also say 9 ones.

19	$10 + 9$	1 ten + 9 units	nineteen
43			
69			
54			
35			
21			
73			
44			
32			
89			
17			
95			
56			
68			
67			



Write the first five numbers, in the table above, in order from smallest to biggest.

_____;

Teacher: _____
Sign: _____
Date: _____

Addition and subtraction

**Lebo's stall**

In the morning Lebo has 19 packets of apples.
By lunchtime she has 13 packets left.



a. How many packets does Lebo sell? _____

b. Write your answer as a number sentence.

_____ - _____ = _____

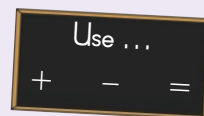
Write five other numbers sentences to show the same answer.

$15 - 9 = 6$ _____

**Number drill**

Write the answers.

$$1 + 2 = 3$$



$10 + 5 =$ <input type="text"/>	$11 + 6 =$ <input type="text"/>	$14 - 9 =$ <input type="text"/>	$14 - 8 =$ <input type="text"/>
$11 + 5 =$ <input type="text"/>	$17 + 2 =$ <input type="text"/>	$19 - 7 =$ <input type="text"/>	$14 - 5 =$ <input type="text"/>
$12 + 6 =$ <input type="text"/>	$3 + 13 =$ <input type="text"/>	$16 - 5 =$ <input type="text"/>	$16 - 13 =$ <input type="text"/>
$17 + 2 =$ <input type="text"/>	$4 + 15 =$ <input type="text"/>	$15 - 10 =$ <input type="text"/>	$19 - 7 =$ <input type="text"/>

**Number families**

5

9

14

Here are examples of this number family.

$9 + 5 = \underline{14}$	$5 + 9 = \underline{14}$
$\underline{14} - 9 = 5$	$\underline{14} - 5 = 9$



Can you find all the number families of 14?

$1 + 13 = 14$	$13 + 1 = 14$	$14 - 1 = 13$	$14 - 13 = 1$
$2 + 12 =$			
$3 + 11 =$			
$4 + 10 =$			
$5 + 9 =$			
$6 + 8 =$			
$7 + 7 =$			



I am going to do the same with 12.

12

$1 + 11 = 12$			
$2 + 10 = 12$			
$3 + 9 = 12$			
$4 + 8 = 12$			
$5 + 7 = 12$			
$6 + 6 = 12$			



Teacher: _____
Sign: _____
Date: _____

Doubles and halves

Do you remember?

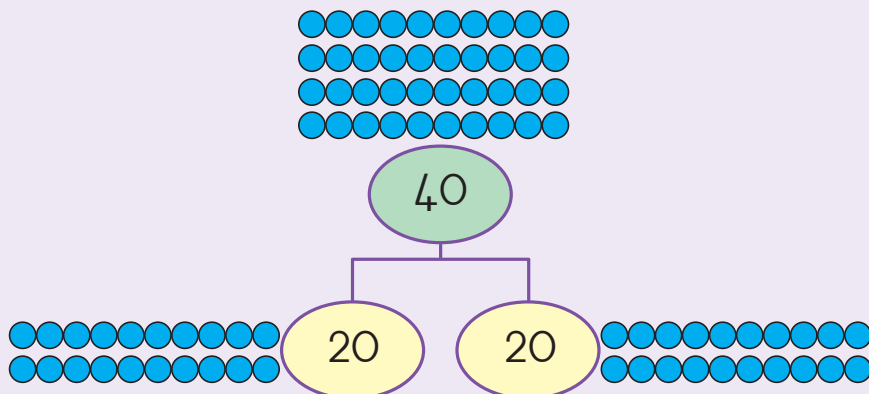
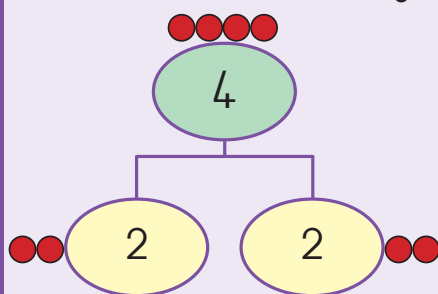
Double 2 is 4

Double 20 is 40

4 is double 2

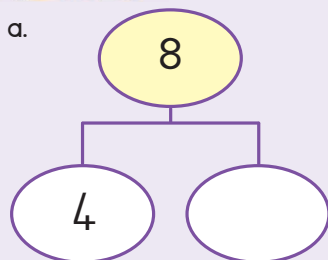
40 is double 20

We can show this in a drawing ...

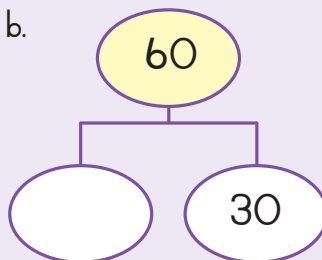


Finding doubles or halves

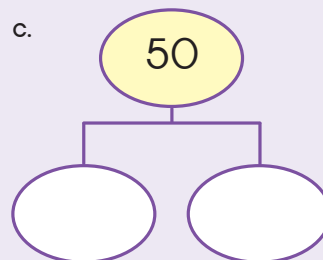
a.



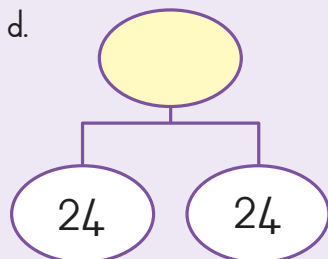
b.



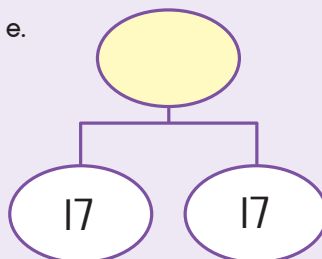
c.



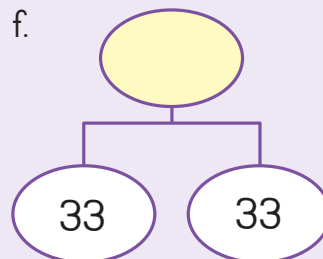
d.



e.



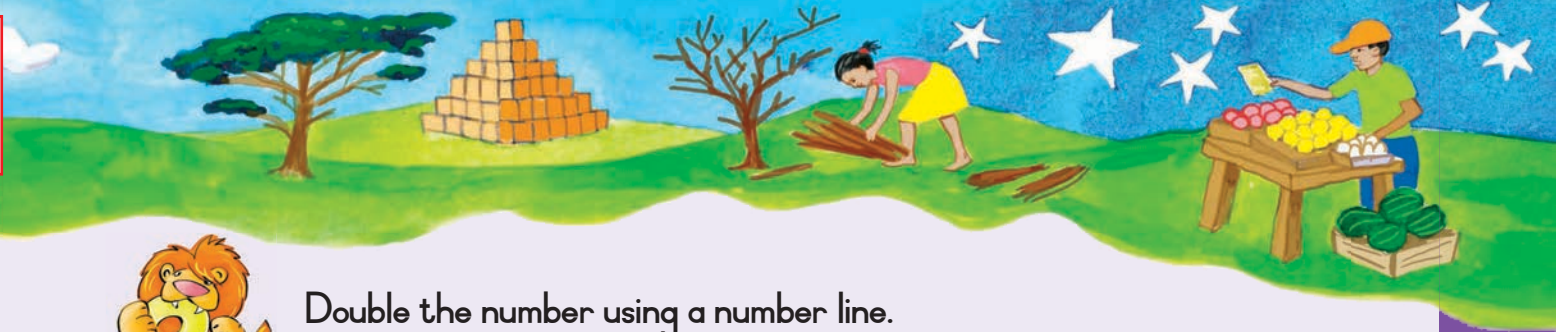
f.



Challenge

Find one half of 3.

Show as a number or number name. A drawing might help you.



Double the number using a number line.
The first example is given to you.

a. Double 4

4

+

4

=

8



b. Double 5

+

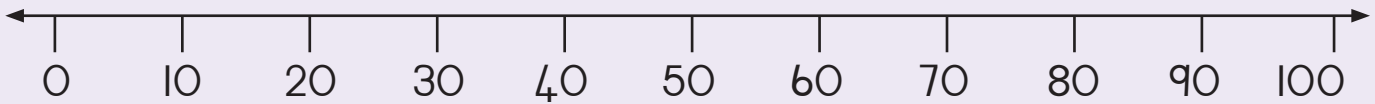
=



c. Double 20

+

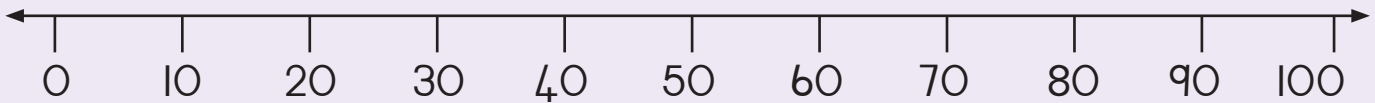
=



d. Double 40

+

=



Complete the following

a. Double 1	2
b. Double 6	
c. Double 10	
d. Double 30	
e. Double 50	



Complete the following

a. Half 6	3
b. Half 8	
c. Half 14	
d. Half 60	
e. Half 70	



Teacher: _____
Sign: _____
Date: _____

Fractions

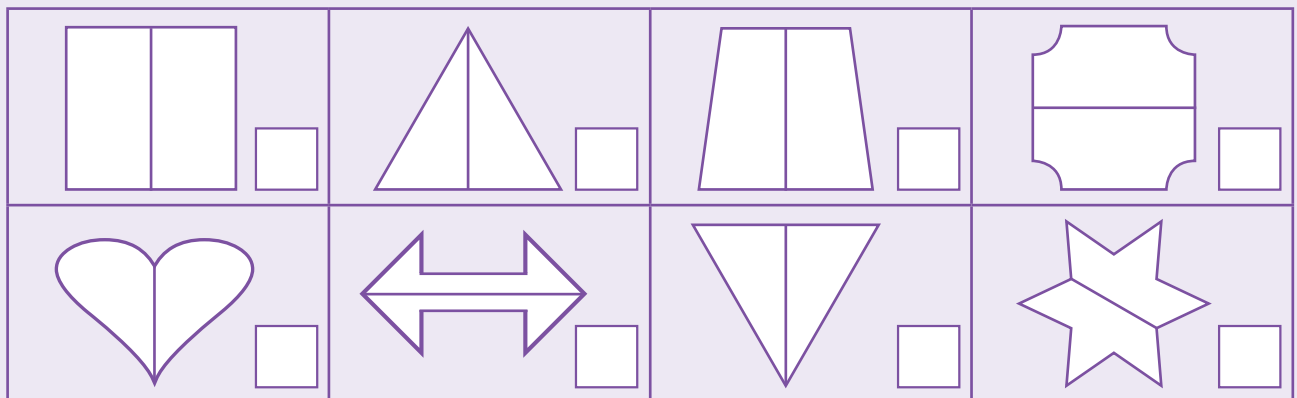
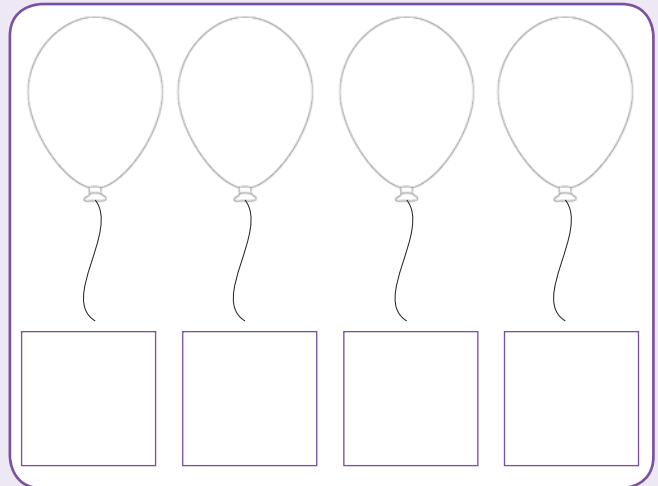
Colour one quarter of the balloons red and the rest blue.

Colour one half of each box red.



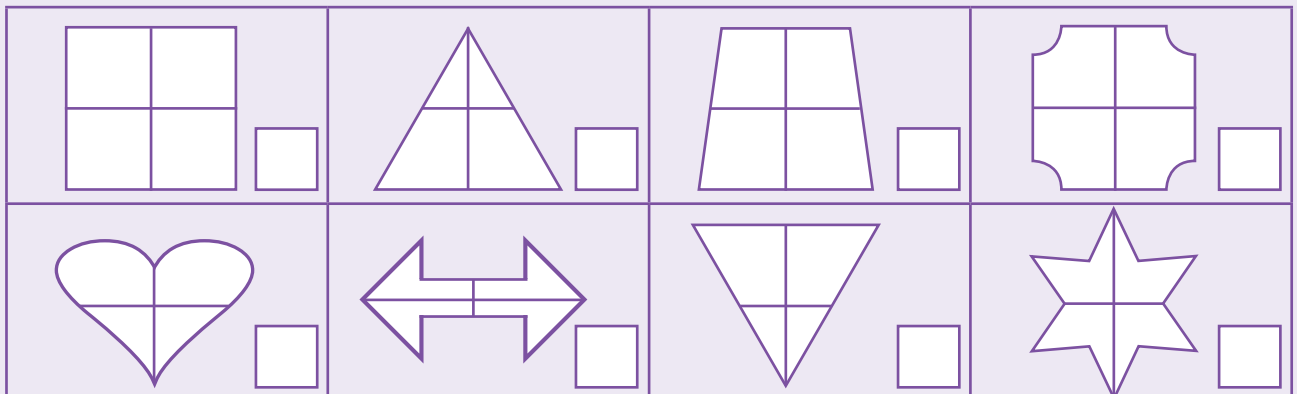
Look at the shapes. Tick the shapes that show halves.

Colour one half of each shape that is divided into halves.



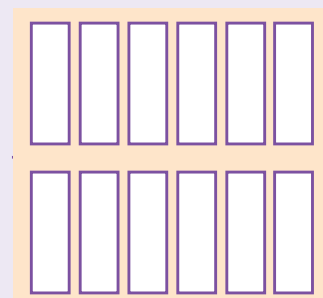
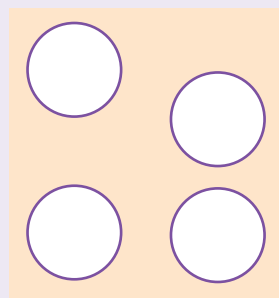
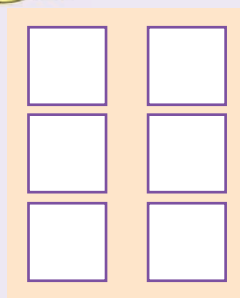
Look at the shapes. Tick the shapes that show quarters.

Colour one quarter of each shape that is exactly divided into equal quarters.

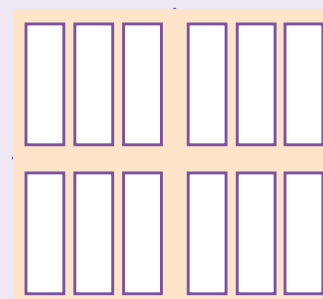
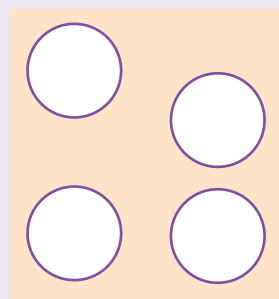
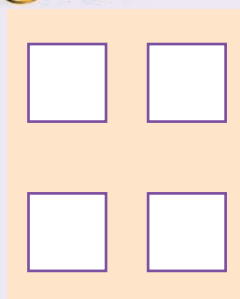




Colour in a half of the shapes. What is a half of the number of the shapes?



Colour in a quarter of the shapes. What is a quarter of the number of the shapes?



Write as a fraction symbol.

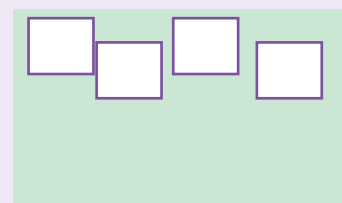
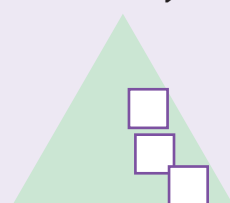
one half



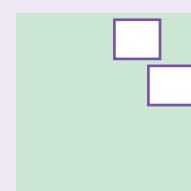
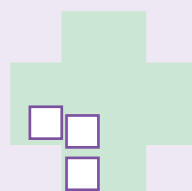
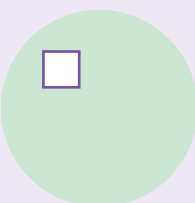
one quarter



Draw more shapes to make each half equal.



Draw more shapes to make each quarter equal.



Teacher: _____
Sign: _____
Date: _____

Sorting money



At the stokvel

Ma Lubisi counts and sorts the money from the group.



Estimate the total amount. R _____

Count the money. R _____

Compare estimates
and totals.



Saving money

Gugu saves for a pair of shoes that costs R89.

So far she has half the amount.

How much more does she need?

Write a number sentence to show your answer.





At the bank

Maria sorts the notes into piles of 5.
She also has some notes left over.
Write the totals for each row of pictures.



Amount	
	R _____
	R _____
	R _____



Challenge

A visit to the zoo

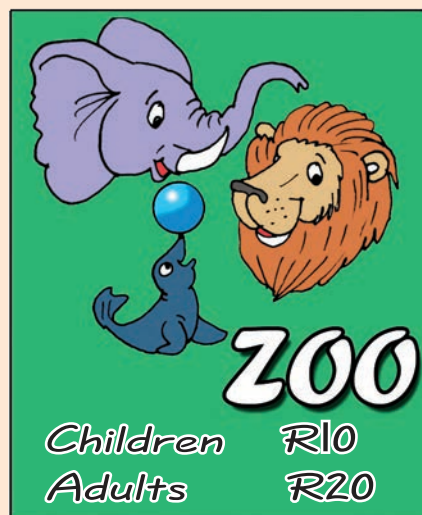
Some adults and children go to the zoo.
They buy tickets for R90.

How many are children? _____

How many are adults? _____

Is there another answer?

Adults _____ Children _____



Teacher: _____
Sign: _____
Date: _____

Patterns



Use this 200 number board to answer the questions.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200



Use the 200 number board to complete the next four numbers in these number patterns. Then colour the pattern on the number board.

105, 110, 115, _____, _____, _____, _____	87, 90, 93, _____, _____, _____, _____
36, 40, 44, _____, _____, _____, _____	184, 186, 188, _____, _____, _____, _____
70, 65, 60, _____, _____, _____, _____	138, 135, 132, _____, _____, _____, _____
180, 176, 172, _____, _____, _____, _____	14, 12, 10, _____, _____, _____, _____



Write the numbers that come next in each pattern. Then colour in the pattern.
What do you notice about the numbers shaded with the same colour?

Counting in fives.

				5					10

Counting in twos.

	2		4						

Counting in threes.

		3			6				

Counting in tens.

									10



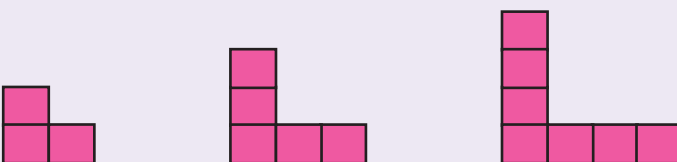
Extend the pattern.



--	--	--	--	--	--	--	--	--	--



--	--	--	--	--	--	--	--	--	--





Teacher:
Sign:
Date:

Balls, boxes and cylinders



Circle the boxes in blue, the balls in red and the cylinders in green.



Colour the correct answer.



The box

slides

rolls



The cylinder

slides

rolls



The ball

slides

rolls



Colour in the correct answer.



curved edge

straight edge



curved edge

straight edge



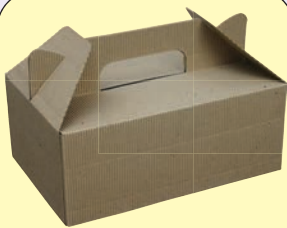
curved edge

straight edge



curved edge

straight edge



curved edge

straight edge



curved edge

straight edge



curved edge

straight edge



curved edge

straight edge



Say if the can is behind, in front of, next to or on top of the box.



behind

in front of

next to

on top of



behind

in front of

next to

on top of



behind

in front of

next to

on top of



behind

in front of

next to

on top of



Teacher:

Sign:

Date:



Date:

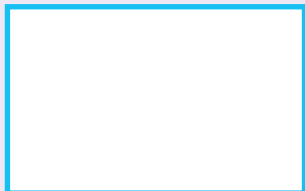


Term I



Draw, name and compare 2D shapes
Draw the shapes.

Triangle



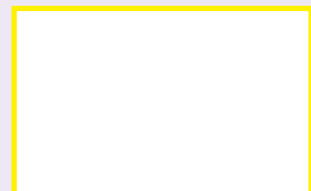
Circle



Square

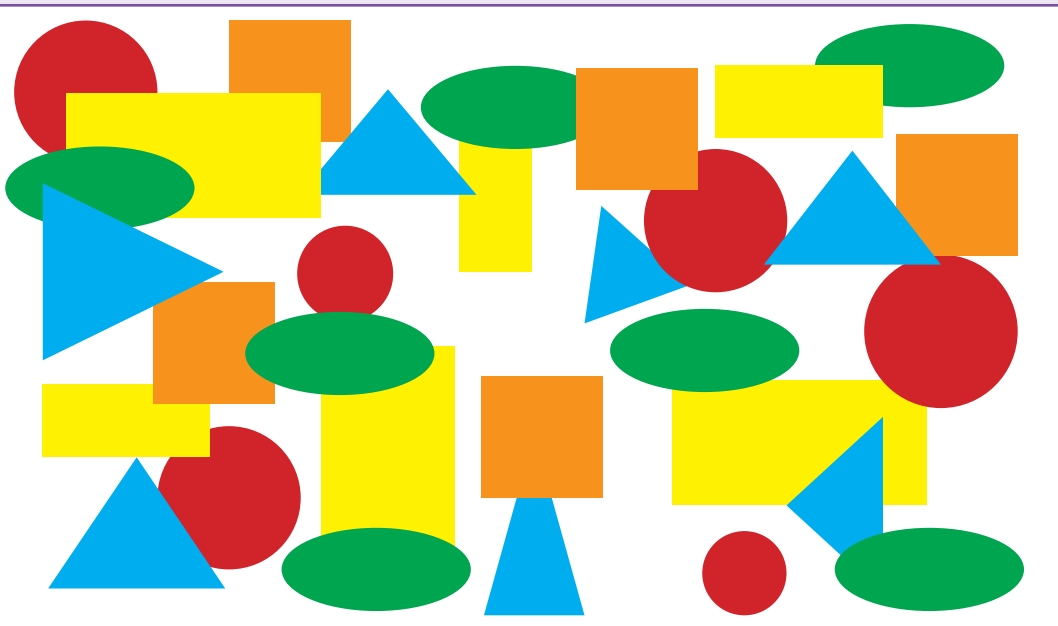
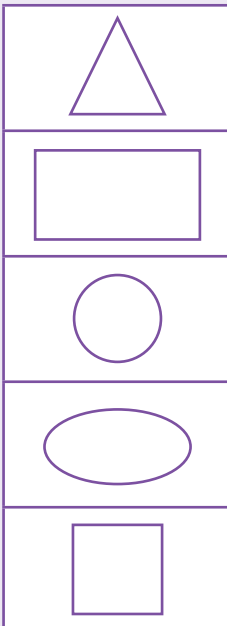


Rectangle



Counting the shapes.

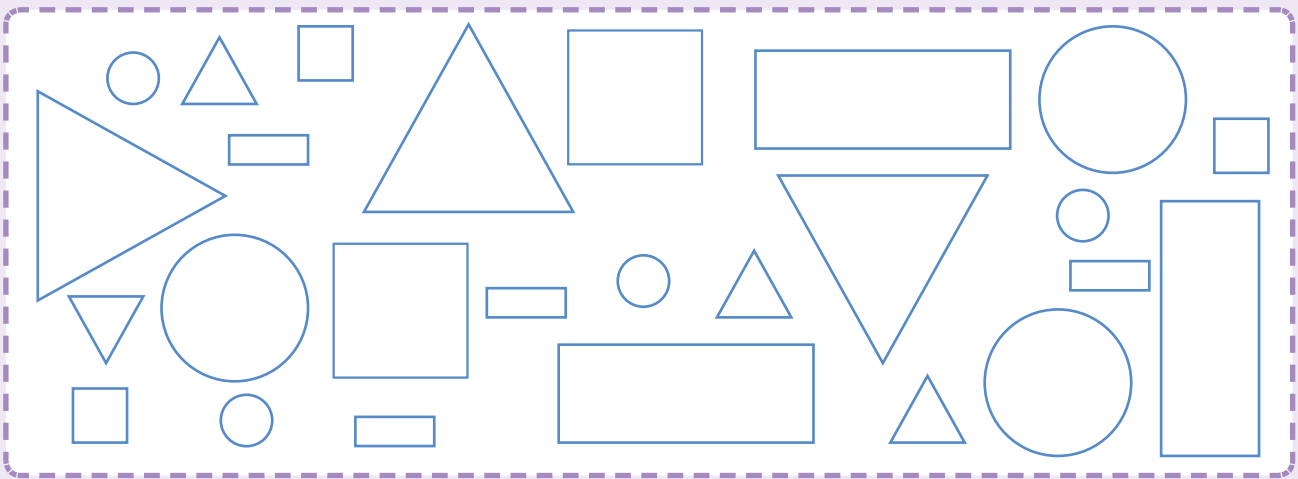
Count how many shapes like this you can find in the picture.





Colour all the

- big circles red, small circles green;
- big triangles blue, small triangles orange;
- big squares yellow, small squares purple;
- big rectangles brown, small rectangles pink.



How many sides?

How many sides does each shape have? Write the number in the block.

We have done one for you. Are the sides straight or curved? Colour in the correct answer.

 <div>straight <input checked="" type="checkbox"/> curved <input type="checkbox"/></div>	 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>	 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>	 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>
 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>	 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>	 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>	 <div>straight <input type="checkbox"/> curved <input type="checkbox"/></div>



Teacher: _____

Sign: _____

Date: _____

Time passes



Reading the time

What times do these watches show?



_____ o'clock

_____ o'clock

_____ o'clock

_____ o'clock

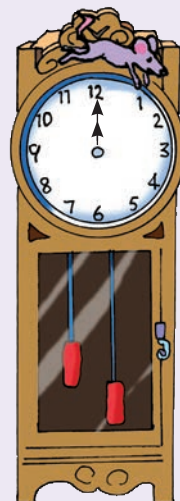


Jump around the clock

Help Minnie Mouse count the minutes in 5s.
Start at the 12. Go all the way around.

How many minutes do you count? _____

How many minutes in 1 hour? _____



Writing the time

Draw the hands to show the times.



quarter past 6



half past 8



quarter to 11



half past 5



Zander walks to school.



He leaves home.



He gets to school.

How long does Zander take? _____



Baking day

Maria bakes bread.



The bread goes into the oven.



The bread comes out.



The bread bakes for _____ minutes.



Challenge

In double time

a. Change the hours to minutes.

Hours	1	2	4	8
Minutes	60			

b. Mandla takes 45 minutes to get to school. Zander takes twice as long. How many hours does Zander take to get to school?

I can see a pattern.

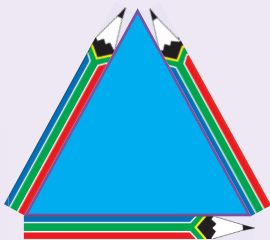


Teacher:

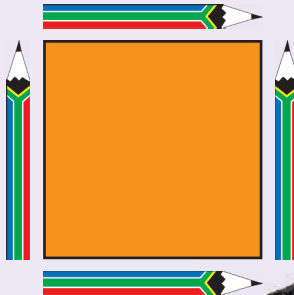
Sign:

Date:

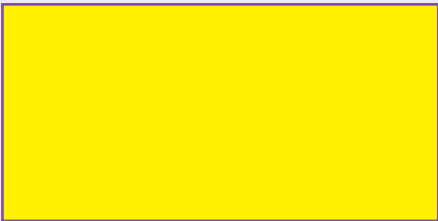
Measuring length



Together, all the sides of this triangle are 3 pencils long.



Together, all the sides of this square are 4 pencils long.



I wonder how long and wide the rectangle is.

How many pencils long is the rectangle?

How many pencils wide is the rectangle?

length

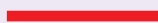
width

How did you use the pencils to count?

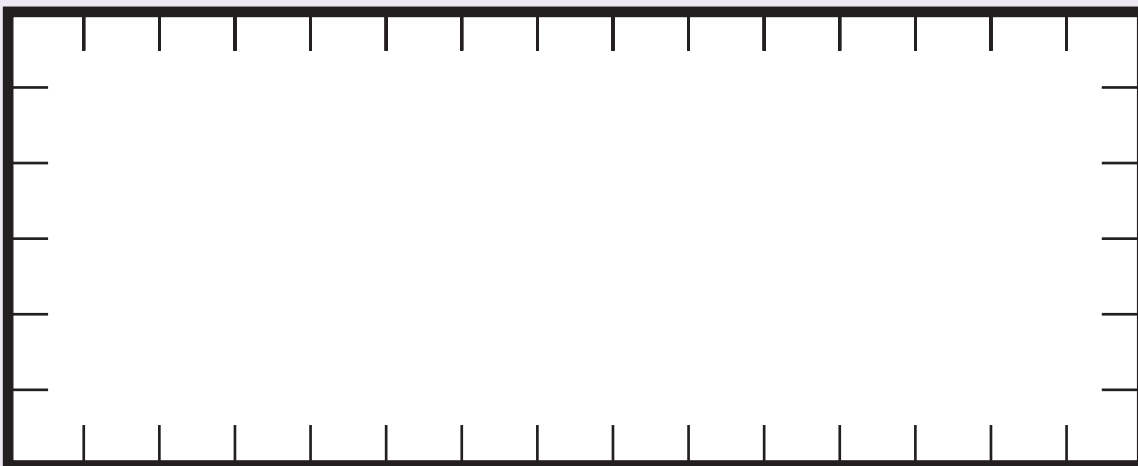


Mystery lengths

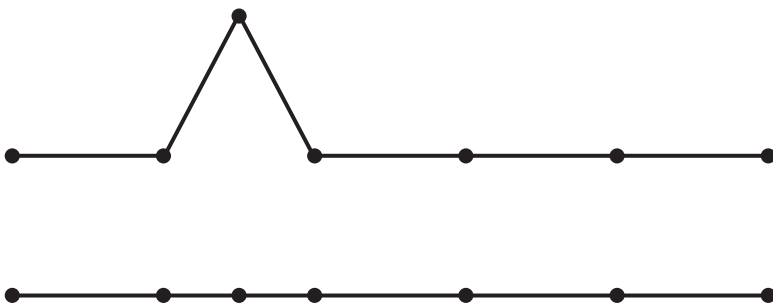
- a. How many of the red lines do you need to cover the black line?



- b. How many of the red lines do you need to go all the way around the rectangle?



- c. Which is longer, the top path or the lower one, or are they the same?



Answer _____

Why? _____



Teacher: _____
Sign: _____
Date: _____

Capacity



The measuring jug holds 10 cups of water. I have already put two cups into the measuring jug.

How many more cups of water will fill the container?



How many cups of water are in the container?
How many cups more do we need to fill the container?

a.



In the container:

1

Need more:

9

b.



In the container:

Need more:

c.



In the container:

Need more:

d.



In the container:

Need more:

e.



In the container:

Need more:

f.

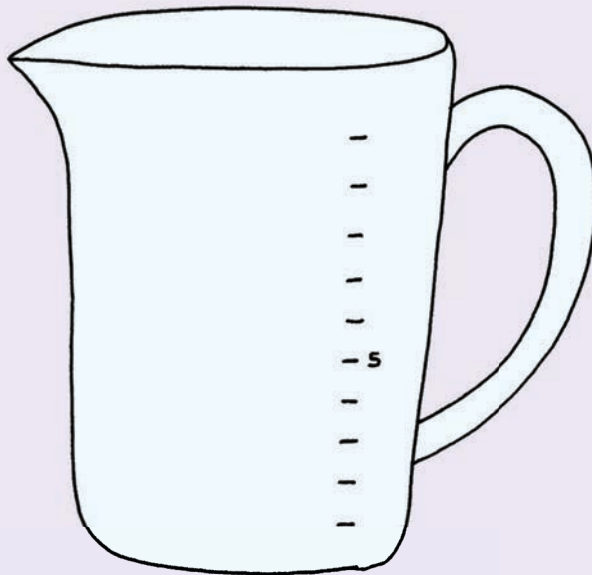


In the container:

Need more:



Write the intervals on this measuring jug. We have shown interval 5.

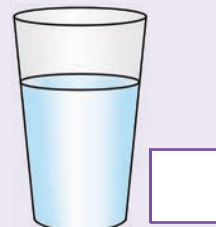


If one cup fills the jug to the second interval, how many cups do you need to fill the jug to:

- a. 4 _____
- b. 6 _____
- c. 8 _____
- d. 10 _____



Tick which containers you think hold 1 litre of liquid.



Teacher: _____
 Sign: _____
 Date: _____

Working with mass

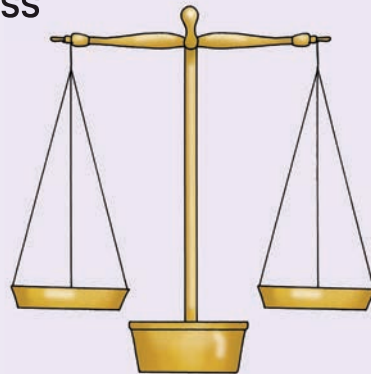


Let's measure how heavy we are!

To find out how **heavy** or **light** we are, we use a scale.

We use **kilograms** to measure how heavy we are.

We use this abbreviation: kg. Who weighs the most?



41 kg



38 kg



41 kg



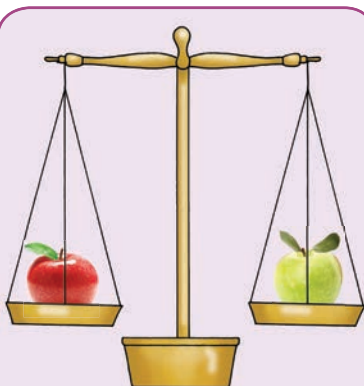
42 kg



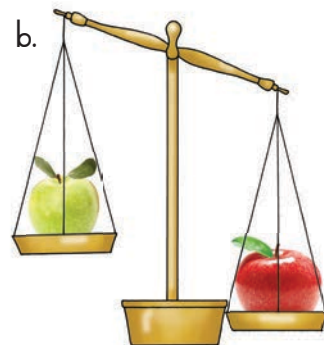
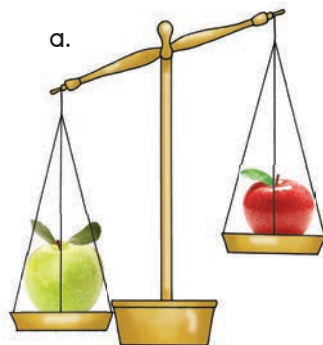
39 kg



We use a balance scale to measure mass.



On this scale both apples weigh the same.



Answer the question. Write a or b.

On which scale is the green apple heavier than the red apple

On which scale is the green apple lighter than the red apple



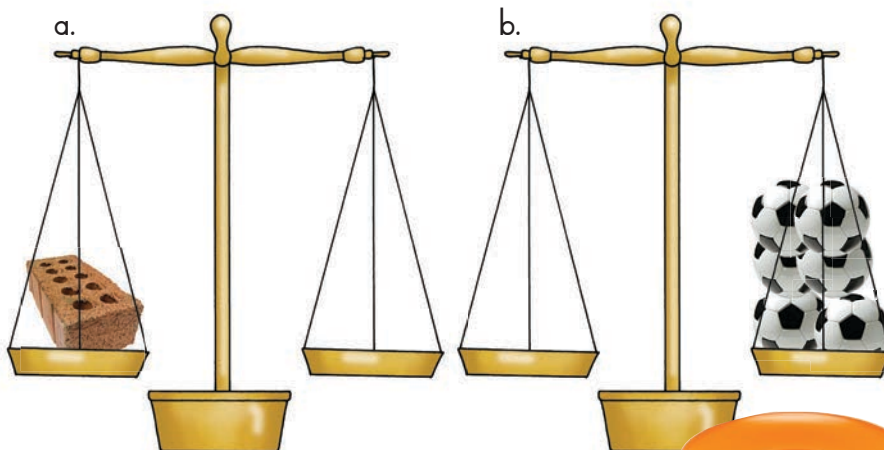
Balance the scales.

We did the first one for you.



Two bricks weigh the same as four balls.

Draw how many bricks or balls you need to make these scales balance.



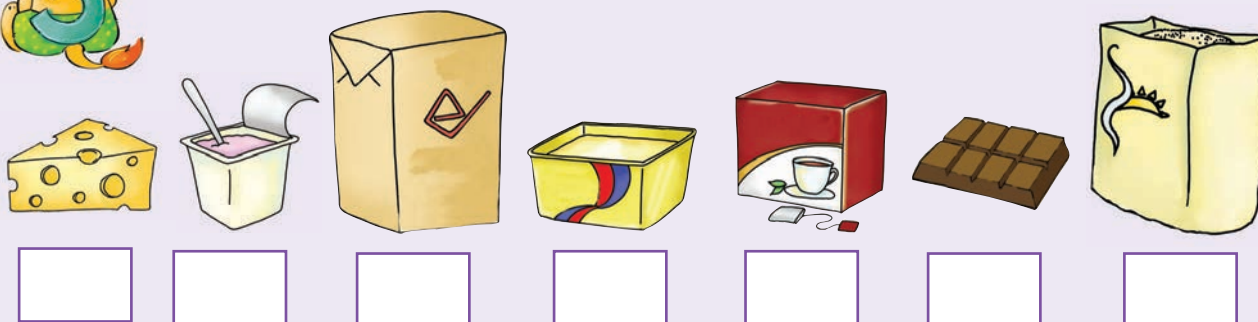
If one parcel weighs 3 kg, how much will 2 and 3 parcels weigh?

- 2 parcels _____ kg
- 3 parcels _____ kg
- Can I measure 4 parcels at the same time on this kitchen scale? _____

Why or why not? _____



Tick in the answer blocks which objects weigh about 1 kg.



Teacher: _____

Sign: _____

Date: _____

Data handling



Shoes in the class



Read the story.

Thabo: Wow, Miss! Jack is a giant! He wears size 6 shoes!

Mrs Khoza: Well! Yes, Thabo, that is big for a nine year old!
What size shoe do you wear Thabo? What sizes do the rest of the class wear?
Let's do a survey!

The learners call out their sizes, one by one.

Mrs Khoza writes the sizes on the board.

Mrs Khoza: Count, then write how many of each size.

2	2	3	1	2	3	1	4	3	2	3
2	3	2	6	2	2	3	3	3	4	3
4	2	2	3	3	5	3	2	2	2	1
1	1	2	4	2	3	2	3	4	2	4
4	3	2	2	3	1	2	2	1	4	3

Fill in the table below.

Shoe sizes in the class					
Size 1	Size 2	Size 3	Size 4	Size 5	Size 6



Now draw a pictograph



= one learner

Size 1	Size 2	Size 3	Size 4	Size 5	Size 6



Now answer these questions.

- Most learners wear shoe size _____.
- The fewest number wear size _____.
- _____ children took part in this survey.



What about you?

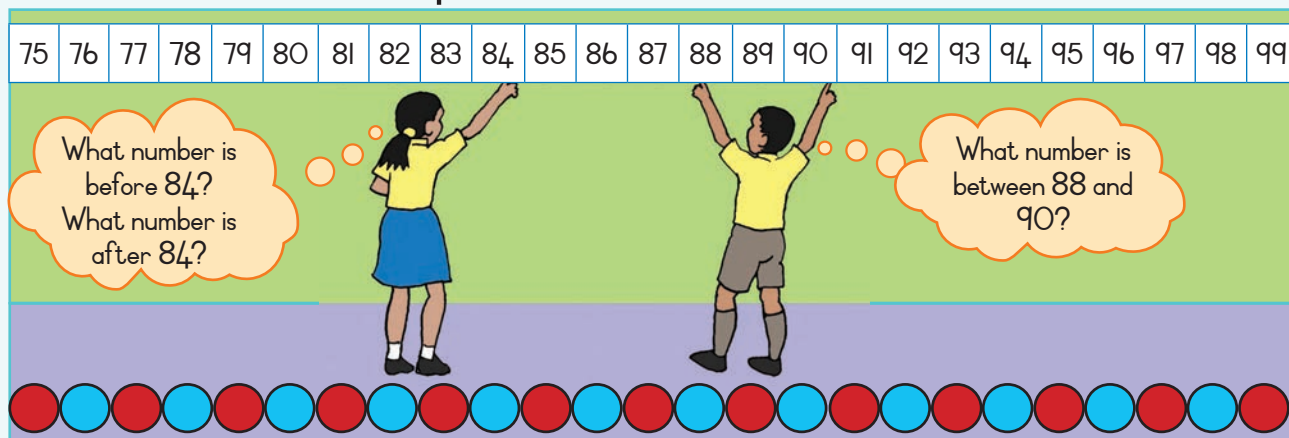
Find out what shoe sizes you and your friends wear!

- Work in a group of 6 to 8.
- Collect your data.
- Write the number of shoe sizes in a table.
- Compare answers with other groups.



Teacher: _____
 Sign: _____
 Date: _____

Compare and order numbers



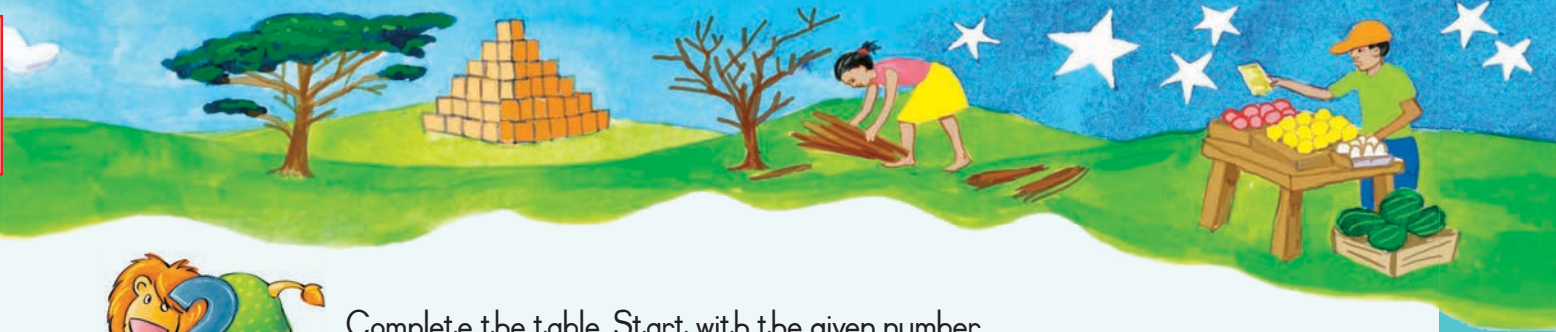
Fill in the missing numbers.

51									
						67			
71									
									100

Use the number board to answer the questions.

- Which number is before 68? _____
- Which number is after 68? _____
- Write down five numbers smaller than 71. _____, _____, _____, _____, _____
- Write down five numbers bigger than 71. _____, _____, _____, _____, _____
- What numbers are between 79 and 84? _____
- Write the numbers from the smallest to largest. 73, 52, 50, 59, 61

- Write the numbers from the largest to smallest. 74, 96, 99, 91, 38



Complete the table. Start with the given number.

	one more	one less	ten more	ten less
25				
39				
74				
56				
40				



Circle the biggest number.

78 87 17

36 63 33

Circle the smallest number.

99 19 9

14 41 40



If $<$ means **smaller than**, and $>$ means **bigger than**, complete:

32 $<$ 64

23 $>$ 18

57 \square 98

89 \square 57



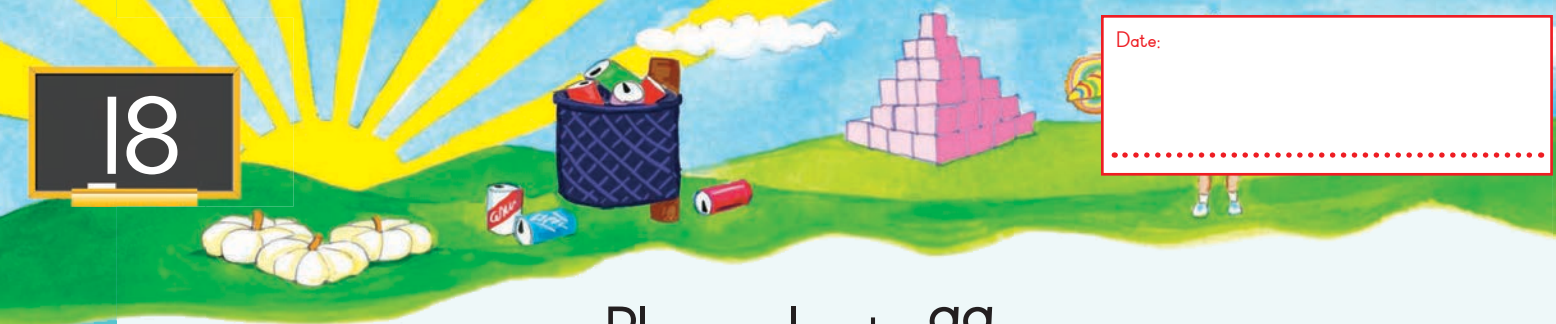
Find 5 numbers in a newspaper between 50 and 99 and paste them in order from the smallest to the biggest.



Teacher: _____

Sign: _____

Date: _____



Date:

Place value to 99



Showing numbers using objects

We can show numbers with place value blocks.

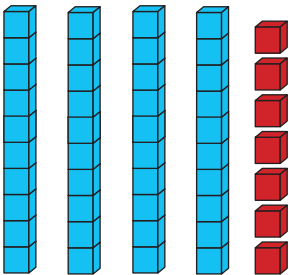
A small block stands for a 1. It is a **unit**.

A rod of 10 small blocks stands for a 10. It is a **ten**.

Tens	Units

You can show a number using tens and units.

Here is how to show 47.



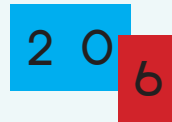
Tens	Units
4	7
forty-seven 47	



Writing numbers in digits and words

- a. Under the picture, write how many tens and how many units.
Then write the number in symbols and words.

Tens	Tens	Tens
3		
Units	Units	Units
1		
31 thirty-one		



b. We can also use our number cards to show it.

Number	How many tens?	How many units?	Write the number in words
26	2	6	twenty-six
46			
99			



What is the number?

	<div><div>30</div><div>5</div></div> <div><div>3</div><div>5</div></div>	<table><tr><th>Tens</th><th>Units</th></tr><tr><td>3</td><td>5</td></tr></table> <p>thirty-five</p> <p>35</p>	Tens	Units	3	5
Tens	Units					
3	5					
	<div><div></div><div></div></div> <div><div></div><div></div></div>	<table><tr><th>Tens</th><th>Units</th></tr><tr><td></td><td></td></tr></table> <p>_____</p> <p>_____</p>	Tens	Units		
Tens	Units					
	<div><div></div><div></div></div> <div><div></div><div></div></div>	<table><tr><th>Tens</th><th>Units</th></tr><tr><td></td><td></td></tr></table> <p>_____</p> <p>_____</p>	Tens	Units		
Tens	Units					





Reading

Putting tens together when we add to 99

Here is one way to show 22.

Tens	Units

1 ten

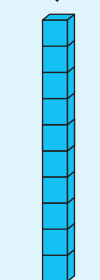
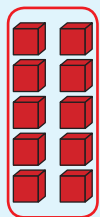
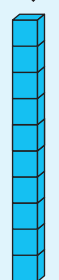
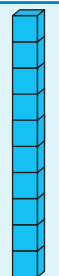
12 units

1 0

1 0

2

We have one ten



We have twelve units.

We will put 10 of the units in a group.

Now we have another way to show 22.

Tens	Units

2 tens

2 units

2

2

Let's add $27 + 4$. The blue blocks are the units we start with and the red units are the units we are adding to them.

27 is 2 tens and 7 units.

Then we add 4 more units.

Tens	Units

2 tens

7 units

+ 4 units

2 0

7

4

We have 2 tens and 11 units.

Tens	Units

We can show 10 units as 1 ten.

2 0

1 0

1

Now we have

3 tens + 1 unit = 31

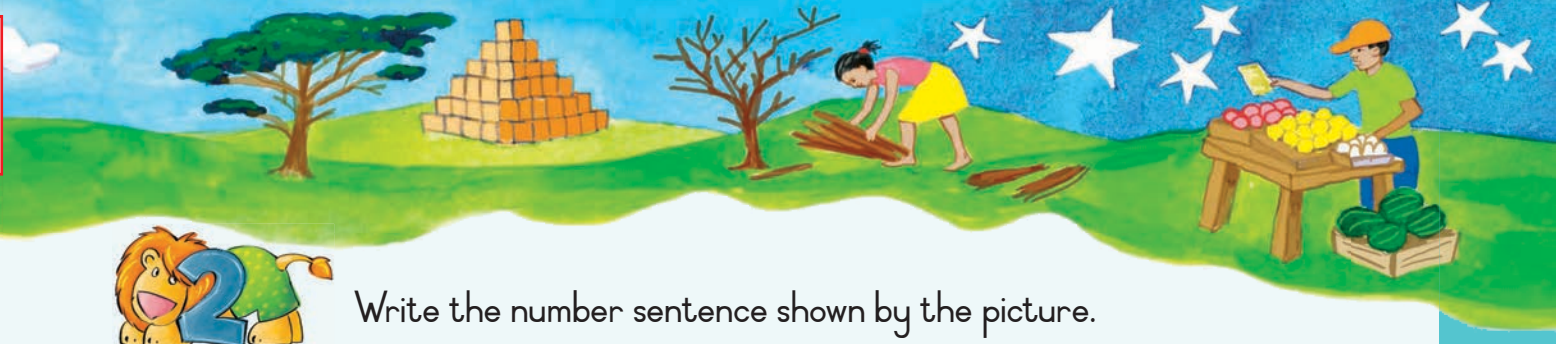
Tens	Units

+

=

3

1



Write the number sentence shown by the picture.

Tens	Units	Tens	Units	Tens	Units
<div style="border: 1px solid blue; width: 50px; height: 40px; margin: 0 auto;"></div>	<div style="display: inline-block; border: 1px solid red; width: 30px; height: 40px; margin: 0 5px;"></div> <div style="border: 1px solid red; width: 30px; height: 40px; margin: 0 auto;"></div>	<div style="display: inline-block; border: 1px solid blue; width: 50px; height: 40px; margin: 0 5px;"></div> <div style="display: inline-block; border: 1px solid blue; width: 50px; height: 40px; margin: 0 5px;"></div> <div style="border: 1px solid red; width: 30px; height: 40px; margin: 0 auto;"></div>	<div style="display: inline-block; border: 1px solid blue; width: 50px; height: 40px; margin: 0 5px;"></div> <div style="display: inline-block; border: 1px solid red; width: 30px; height: 40px; margin: 0 auto;"></div>	<div style="border: 1px solid blue; width: 50px; height: 40px; margin: 0 auto;"></div>	<div style="border: 1px solid red; width: 30px; height: 40px; margin: 0 auto;"></div>
$10 + 5 + 6$		$\underline{\quad} + \underline{\quad} + \underline{\quad}$		$\underline{\quad} + \underline{\quad} = \underline{\quad}$	

Complete the pictures. Write the number sentences shown by the picture.

<div style="background-color: #ADD8E6; padding: 2px;">Tens</div>	<div style="background-color: #ADD8E6; padding: 2px;">Units</div>	<div style="background-color: #ADD8E6; padding: 2px;">Tens</div>	<div style="background-color: #ADD8E6; padding: 2px;">Units</div>	<div style="background-color: #ADD8E6; padding: 2px;">Tens</div>	<div style="background-color: #ADD8E6; padding: 2px;">Units</div>

<div style="background-color: #ADD8E6; padding: 2px;">Tens</div>	<div style="background-color: #ADD8E6; padding: 2px;">Units</div>	<div style="background-color: #ADD8E6; padding: 2px;">Tens</div>	<div style="background-color: #ADD8E6; padding: 2px;">Units</div>	<div style="background-color: #ADD8E6; padding: 2px;">Tens</div>	<div style="background-color: #ADD8E6; padding: 2px;">Units</div>



Teacher: _____

Sign: _____

Date: _____

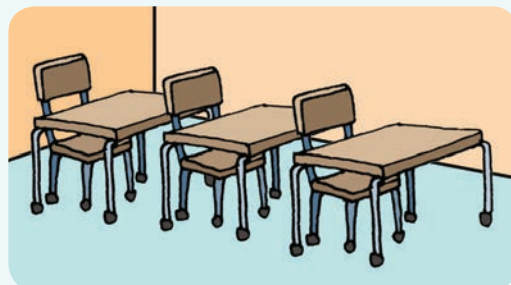
Add on a number line

Sit at your desk!

In our school each learner has their own desk.

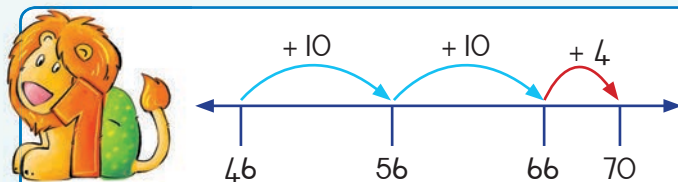
There are 46 learners in Grade 3A and 24 in Grade 3B.

How many desks do we need for both classes?



Working with a partner

Look at how these three learners used a number line to solve the problem. Complete the sums using the example.



This is what I do: I first add 10. This brings me to 56.
Then I jump another 10 to get to 66.
And lastly, I jump 4 more to land at 70.

I must add
24 to 46.

$$= 46 + 10 + 10 + 4$$

$$= 56 + 10 + 4$$

$$= 66 + 4$$

$$= 70$$



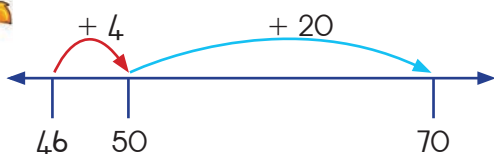
a. $32 + 25 =$





b. $52 + 26 =$

c. $46 + 25 =$



I must add 24 to 46.



This is what I do: First I will jump 4. That will bring me to 50.
I can jump 20 more, which brings me to 70.

$$= 40 + 10 + 20$$

$$= 50 + 20$$

$$= 70$$

a. $36 + 41 =$



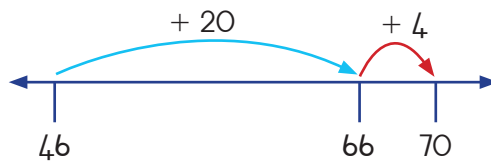
Teacher: _____

Sign: _____

Date: _____

Add on a number line (continued)

b. $57 + 19 = \square$



I must add
24 to 46.

This is what I do: From 46, I can jump 20. That brings me to 66.
Now I have to jump 4 more and then I reach 70.

$$\begin{aligned} &= 46 + 20 + 4 \\ &= 66 + 4 \\ &= 70 \end{aligned}$$



a. $63 + 24 = \square$



b. $65 + 29 = \square$



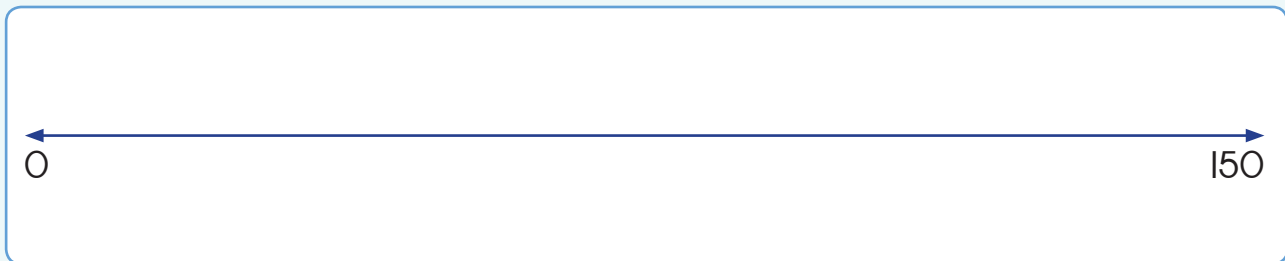


How many loaves?

The baker delivers 54 brown  and 68 white  loaves.

a. How many loaves altogether?

b. Find the total on a number line. Show the **numbers** and the **size** of the jumps.



Add the following without using a number line. Use any other method you like.

$$38 + 24 =$$

$$58 + 17 =$$

$$75 + 16 =$$

$$83 + 29 =$$

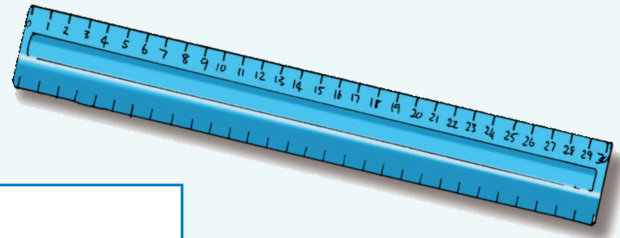


Subtract on a number line

One learner! One ruler!

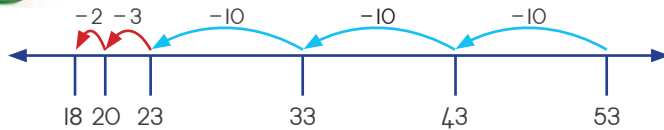
The class needs 53 rulers. We have only 35.

How many more do we need? $53 - 35 =$



Working with a partner

Read how the same three learners use a number line here. Complete the sums using the example.



I have to subtract 35 from 53. Subtraction means to **take away**.



So, I will start at 53 and take away. I'll **take away** 10, 10, 10 – that brings me to **23**. Now to take away five. First I take away 3, and I come to **20**. I take away 2 more and I get to **18**. So we need **18** rulers.

$$= 53 - 10 - 10 - 10 - 3 - 2$$

$$= 43 - 10 - 10 - 3 - 2$$

$$= 33 - 10 - 3 - 2$$

$$= 23 - 3 - 2$$

$$= 20 - 2$$

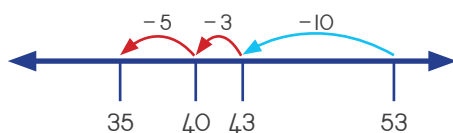
$$= 18$$



a. $68 - 24 =$

b. $74 - 38 =$

c. $92 - 87 =$



Subtraction means to find the **difference** between 53 and 35.



I'll start at 53 and **count down** to 35 to **find the difference**. If I count back by 10, I get to 43. I can count back 3 more to get to 40. Then I count down 5 more to get to 35.

10 plus 3 plus five is 18. So we need 18 more rulers.

a. $38 - 14 =$



Teacher: _____

Sign: _____

Date: _____

Subtract on a number line (continued)

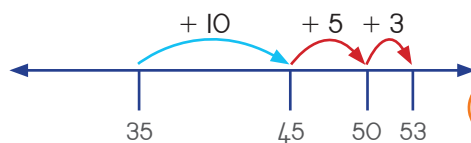
b. $65 - 43 =$



c. $72 - 39 =$



d. $85 - 48 =$



I can start at 35 and see how many jumps it takes me to **count up** to 53.



I can start at 35 and see how many jumps it takes me to **count up** to 53. Ten plus five plus three is 18. We need 18 more rulers.

a. $84 - 32 =$





b. $96 - 53 =$

c. $78 - 19 =$

d. $63 - 47 =$



Going by taxi

The journey by taxi to town is 65 km.

So far the taxi has travelled 38 km.

How much further to go?

Use the number line to solve this problem.



km



Teacher: _____
 Sign: _____
 Date: _____

It's party time





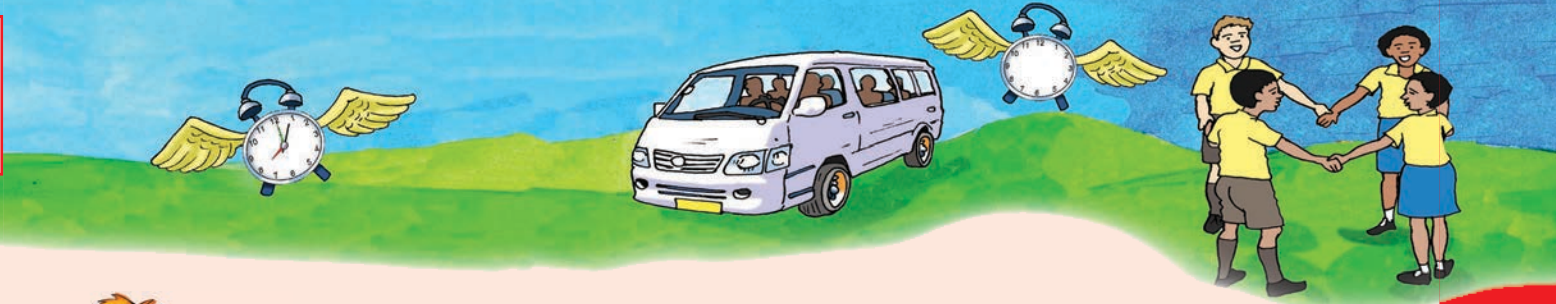
First plan!

Busi asks all of her friends to give her a picture of their favourite party food. This is what she has collected. Help to sort it.




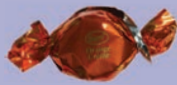


Count, and write how many friends choose each Kind of food.

				
Number				



Complete the pictograph. Use your table to help you. Draw one face (☺) for each child that chooses that kind of food or drink.

☺			
☺			
☺			
☺			
☺			
☺			
☺			
☺			
☺			
☺			
☺			
			

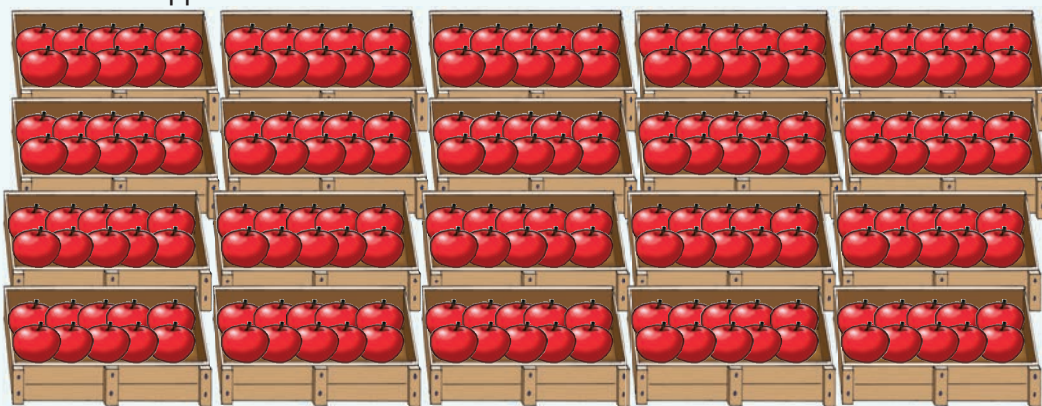


Teacher: _____
 Sign: _____
 Date: _____

Counting up to 200



Count the apples.



Fill in the numbers.

1 Box has apples1 Row has apples1 Row has boxes4 Rows has apples

How many apples can we pack in these boxes?

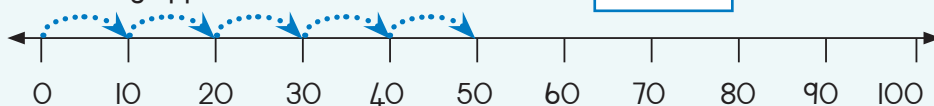
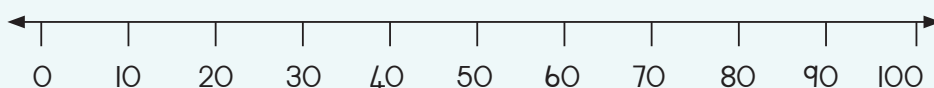
a. 

b. 

c. 



Count on the number line.

a. How many apples will there be in five boxes? b. How many apples will there be in seven boxes? 



3 lots of 10 make

30

$3 \times 10 =$

30

or $10 \times 3 =$

30

5 lots of 10 make

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

or

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

2 lots of 10 make

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

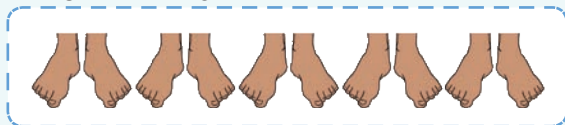
or

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

5 Pairs of feet.

How many toes altogether?



$10 + 10 + 10 + 10 + 10 =$

50

$5 \times 10 =$

$\underline{\quad}$

or $10 \times 5 =$

$\underline{\quad}$

Do these in the same way.

4 Pairs of feet. How many toes?

$\underline{\quad} =$

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

or

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

9 Pairs of feet. How many toes?

$\underline{\quad} =$

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$

or

$\underline{\quad} \times \underline{\quad} =$

$\underline{\quad}$



Count in 10s.

10, 20, 30, 40, 50, _____, _____, _____, _____,

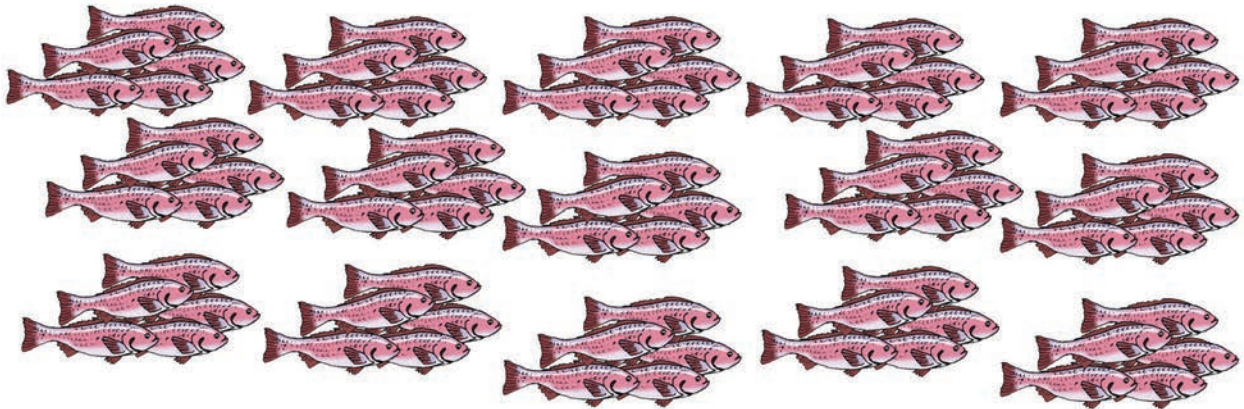
_____, _____, _____, _____, _____, _____, _____, 200



Practice with 5s



How many fish? Make an estimate



Now count the fish. Find the total.

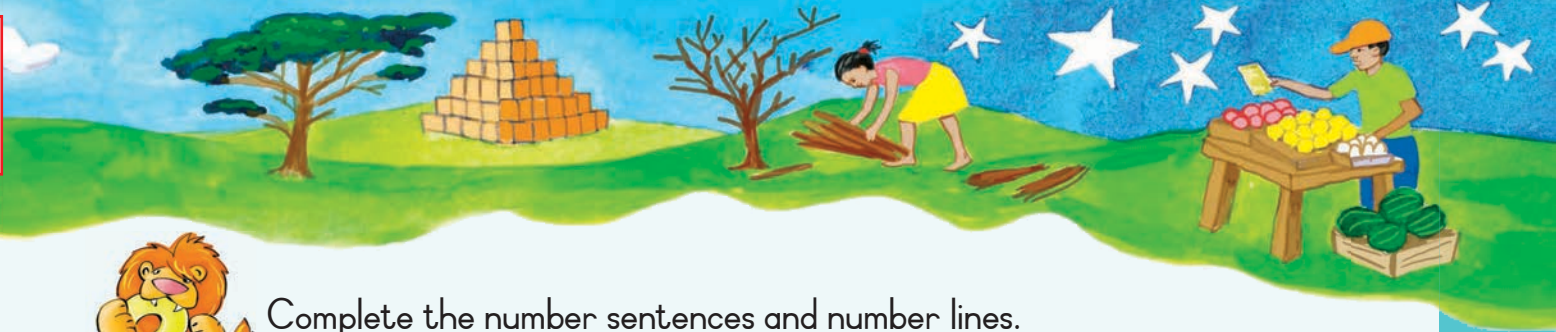


Counting in 5s

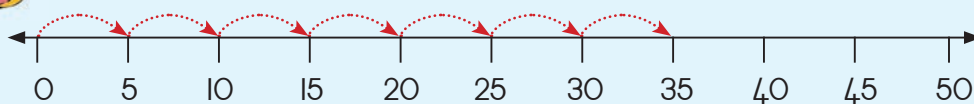
Find the total number of fish eggs. Write a + and \times number sentence.

We have done the first one for you.

Fish and eggs	How many eggs altogether?	
5 fish, each lay 2 eggs	$2 + 2 + 2 + 2 + 2 = 10$	$5 \times 2 = 10$
5 fish, each lay 10 eggs		
5 fish, each lay 4 eggs		
5 fish, each lay 3 eggs		
5 fish, each lay 6 eggs		
5 fish, each lay 8 eggs		
5 fish, each lay 5 eggs		



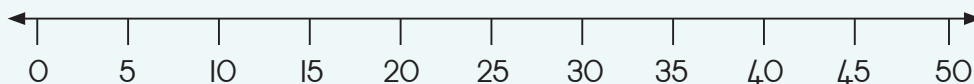
Complete the number sentences and number lines.



$$5 + 5 + 5 + 5 + 5 + 5 + 5 = \boxed{35}$$

$$\text{or } \boxed{7} \times \boxed{5} = \boxed{35}$$

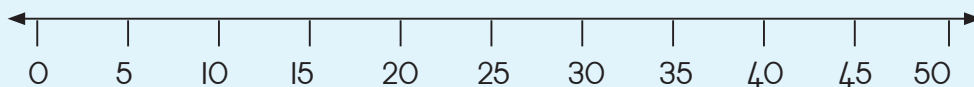
a.



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

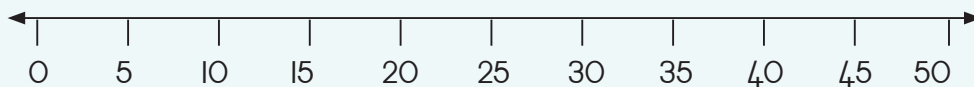
$$\text{or } \boxed{} \times \boxed{} = \boxed{}$$

b.



$$5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = \boxed{} \text{ or } \boxed{} \times \boxed{} = \boxed{}$$

c.



$$\underline{} + \underline{} + \underline{} + \underline{} + \underline{} + \underline{} + \underline{} + \underline{} + \underline{} + \underline{} = \boxed{} \text{ or } 10 \times 5 = 50$$



Catching fish

Sipho catches between 40 and 50 fish. He counts them in 2s and has 1 left over.

He counts them in 5s and has 2 left over. How many fish does Sipho catch? $\boxed{}$

Teacher: _____
Sign: _____
Date: _____



Counting the socks

Count in 2s



a. How many pairs of socks? _____

b. How many socks are there? _____

c. Are there any socks left over? _____



Counting pairs of socks

Write how many pairs of socks there are and say if there are any left over.

Socks	Number of pairs	Number of socks	Single socks left over



Teacher:

Sign:

Date:

Count in 2s (continued)



Building pairs

Write down the even and odd numbers from 1 – 60.

a. Write down the even numbers from 1 – 60.

2, 4, 6,

b. Write down the odd numbers from 1 – 60.

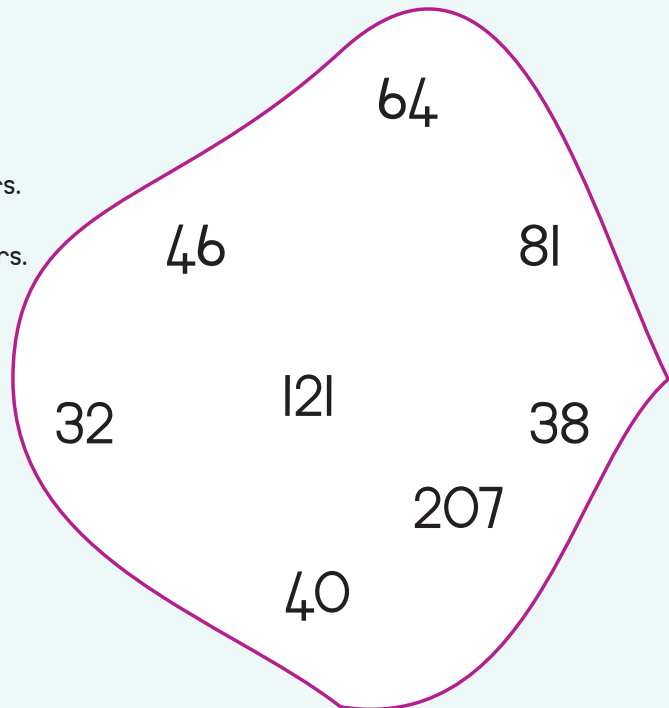
3, 5, 7,



Odds and evens

Draw a circle around the even numbers.


Draw a square around the odd numbers.





From pairs to socks

Example:

2 socks = 1 pair 

$$2 \times 1 = 2$$

20 socks = 10 pairs

$$2 \times 10 = 20$$

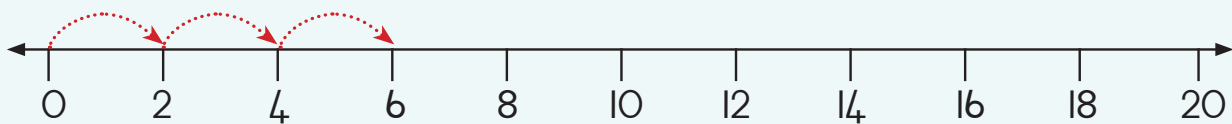
a. Write how many socks.

Think in 2s	Number sentence
1 pair = 2 socks	$1 \times 2 = 2$
2 pairs = _____ socks	$2 \times 2 = \square$
4 pairs = _____ socks	
8 pairs = _____ socks	
9 pairs = _____ socks	

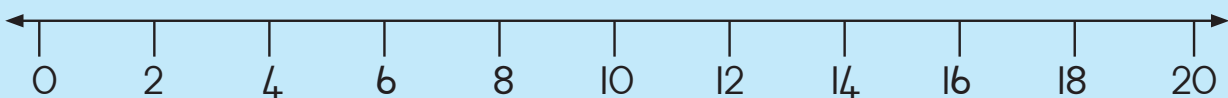
b. Show the sum on the number line and complete.

Example:

$$2 + 2 + 2 = 6 \text{ or } 3 \times 2 = 6$$



$$2 + 2 + 2 + 2 + 2 + 2 + 2 = \square \text{ or } \square \times \square = \square$$



Money then and now



The story of our money

In South Africa we use rands and cents as our money.
We started to use rands and cents in 1961.

In those days the 1 cent coin had the lowest value, then the 2 cent coin and then the 5 cent coin.





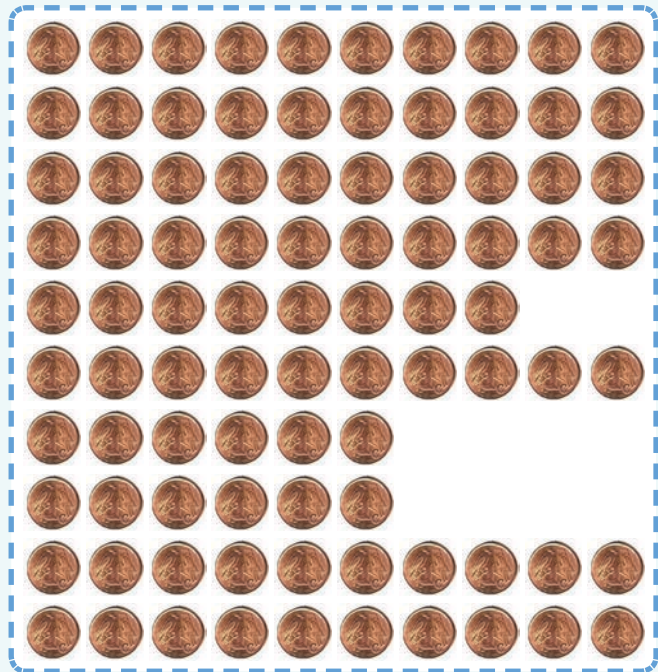
Count the cents

Count the 1 cents.

How many cents are there?

How many more cents do you need to make R1,00?

Draw them in the block.



How many cents?

R1,00 = <input type="text"/> c	R2,00 = <input type="text"/> c
R3,00 = <input type="text"/> c	R1,50 = <input type="text"/> c



How much fruit can I buy?



2

cost R4,00.

How many bananas for R20,00?



2

cost R2,00.

How many apples for R9,00?



Teacher: _____
Sign: _____
Date: _____



Date: _____

Count in 3s



Wheels in 3s



1 tricycle has _____ wheels.

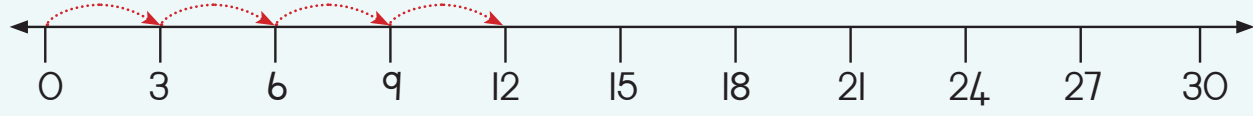


5 tricycles have _____ wheels.	$3 + 3 + 3 + 3 + 3 = 5 \times 3 = \underline{\hspace{2cm}}$
2 tricycles have _____ wheels.	$3 + 3 = 2 \times 3 = \underline{\hspace{2cm}}$
4 tricycles have _____ wheels.	
6 tricycles have _____ wheels.	
9 tricycles have _____ wheels.	
8 tricycles have _____ wheels.	



Number lines

Follow the example.



a. $3 + 3 + 3 + 3 = \boxed{\hspace{1cm}} = 4 \times 3 = \boxed{\hspace{1cm}}$



b.

$$3 + 3 + 3 + 3 + 3 = \boxed{} = \boxed{} \times \boxed{} = \boxed{}$$

c.

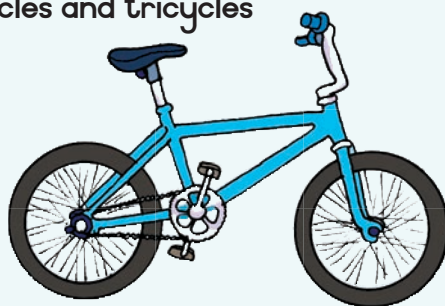
$$\underline{\hspace{10cm}} = \boxed{} = 6 \times 3 = \boxed{}$$

d.

$$\underline{\hspace{10cm}} = \boxed{} = 10 \times 3 = \boxed{}$$



Bicycles and tricycles

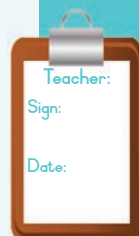


At the cycle shop Busi counts bicycle and tricycle wheels.

There are 14 wheels altogether.

How many bicycles are there? _____

How many tricycles are there? _____



What comes in 4s?



Four legs

Some 4 number facts ...
 $4 + 4 = 8$; $2 \times 4 = 8$



Cows have four legs.











What else comes in fours? _____

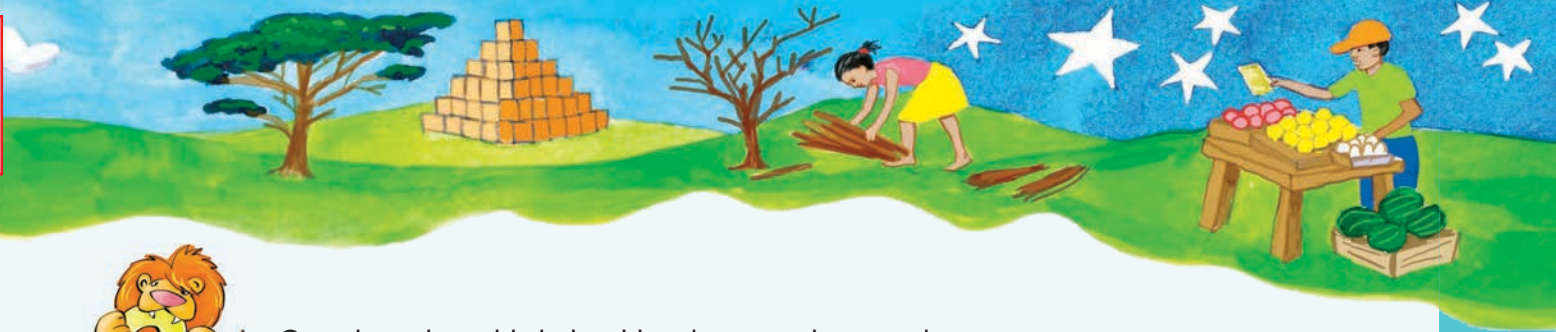


Counting the legs

Share answers.
Explain what you did.

Use the facts you know about 4s to answer these questions.

1 cow  <input type="text" value="4"/> legs	2 cows  <input type="text" value="8"/> legs
3 cows  <input type="text"/>	4 cows  <input type="text"/>
5 cows  <input type="text"/>	6 cows  <input type="text"/>
7 cows  <input type="text"/>	8 cows  <input type="text"/>
9 cows  <input type="text"/>	10 cows  <input type="text"/>



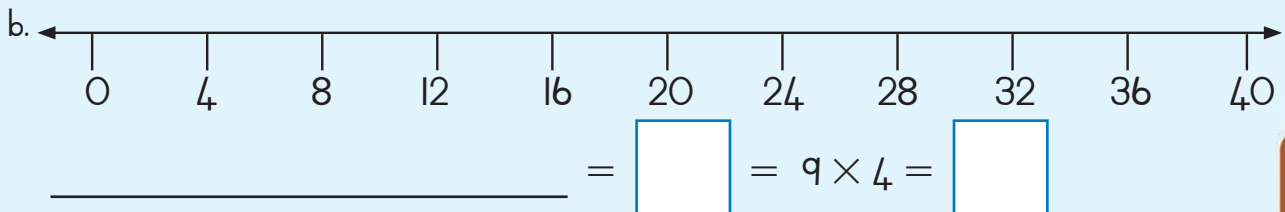
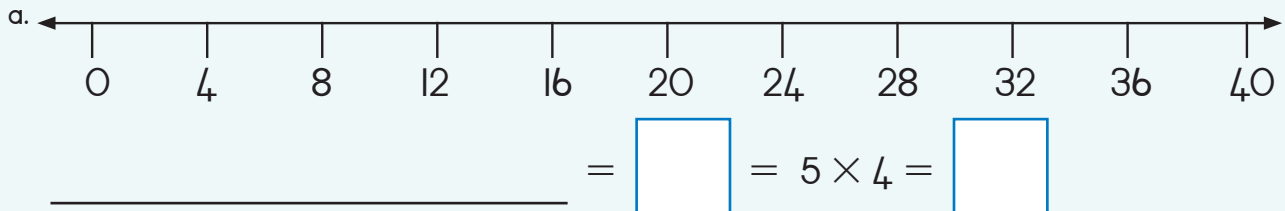
Complete the table below. Use the example to guide you.

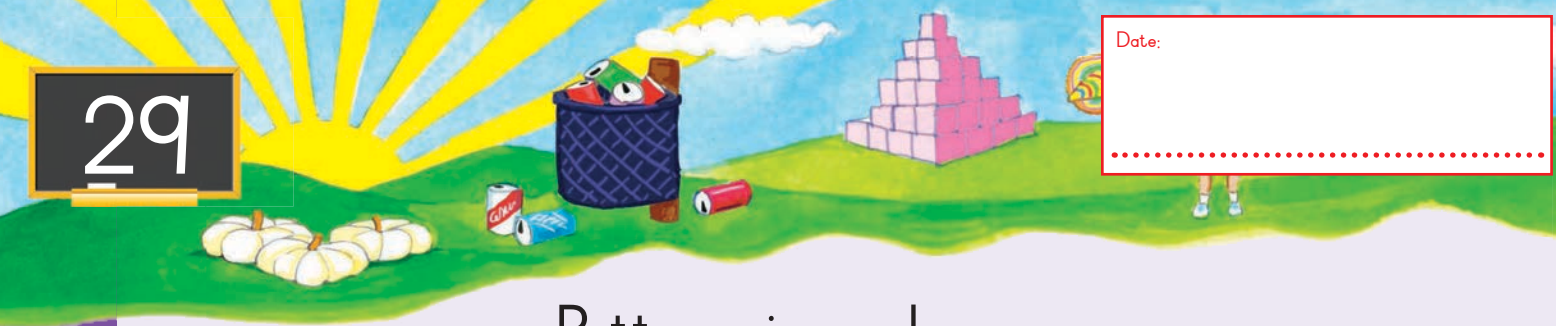
3 cows have _____ legs.	$4 + 4 + 4 = 3 \times 4 = \underline{12}$
5 cows have _____ legs.	
4 cows have _____ legs.	
7 cows have _____ legs.	
8 cows have _____ legs.	



Number lines

Show the multiplication sum on the number line and complete using jumps (hops).





Date:

Patterns in numbers



Grid patterns

Which number pattern do the circles in each 100 grid show?

Draw more circles to complete each pattern.

Write a name for each pattern.

a. Pattern: _____

					o					o
					o					o
					o					o
					o					o
					o					o
					o					o
					o					o

b. Pattern: _____

	o		o		o		o		o
	o		o		o		o		o
	o		o		o		o		o
	o		o		o		o		o
	o		o		o		o		o
	o		o		o		o		o
	o		o		o		o		o

c. Pattern: _____

		o			o			o	
	o			o			o		
o			o			o			o
		o			o			o	
	o			o			o		
o			o						

d. Pattern: _____

			o				o		
	o			o				o	
			o				o		
	o			o				o	

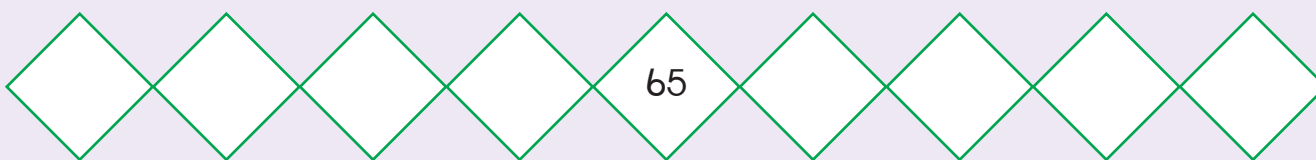


Making your own patterns

- a. In this number pattern all the numbers are even. What can the other numbers be?
Write them in.



- b. In this number pattern the numbers are all odd. What can the other numbers be? Write them in.



Where do they belong?



The 3s and 4s pattern	The 3s and 5s pattern	The 4s and 5s pattern
e. g. 48		



At the sea

Thembi collects **between 60 and 70** sea shells.
When she counts them in 3s, she has 1 left over.
The possible numbers are: 61, _____, _____, 70.
When she counts them in 5s, she has 4 left over.
The possible numbers are: _____, _____.
How many shells does Thembi have? _____.



Teacher: _____
Sign: _____
Date: _____

Division



Share the sweets:



- a. Share 30 sweets between 2 children.



We can write it as

$$30 \div 2 = 15$$

- b. Share the sweets among 3 children.



$$\div =$$

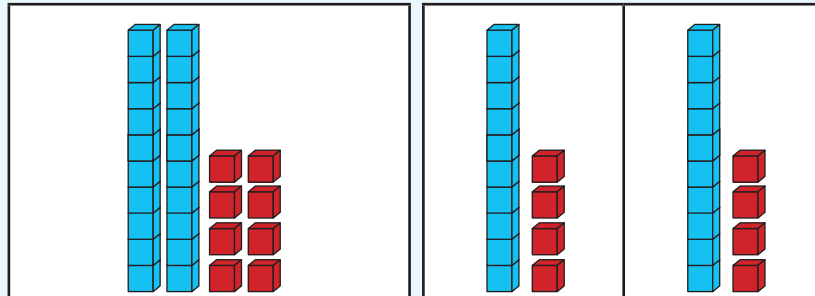
- c. Divide the sweets between 5 children.



$$\div =$$



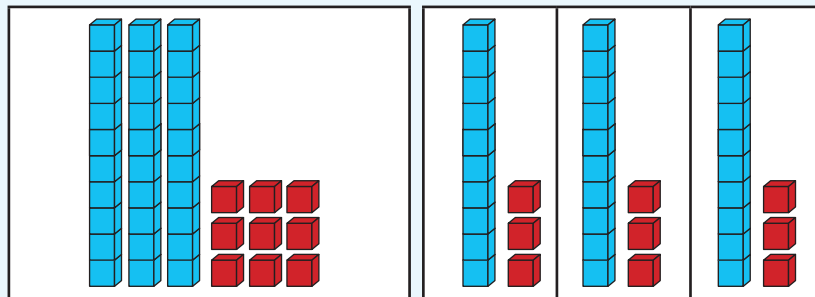
We can use number blocks to do division.



$$2 \ 8 \div 2 = 1 \ 4$$

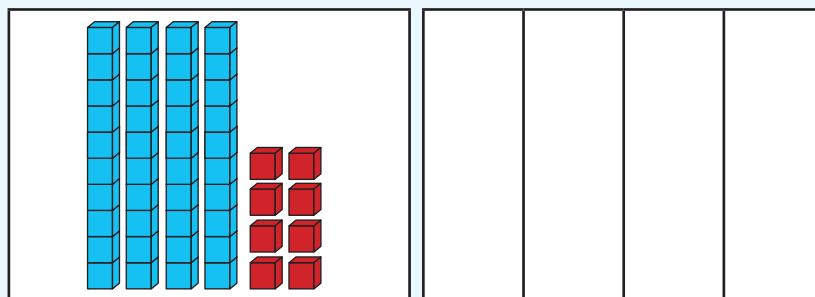
Now do these.

a.



$$\square \ \square \div 3 = \square \ \square$$

b.



$$\square \ \square \div 4 = \square \ \square$$

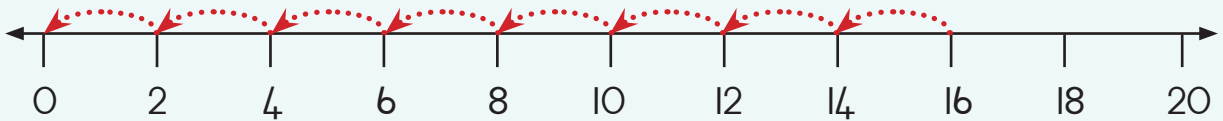


Division (continued)



Use the number lines to write a subtraction and division number sentence.

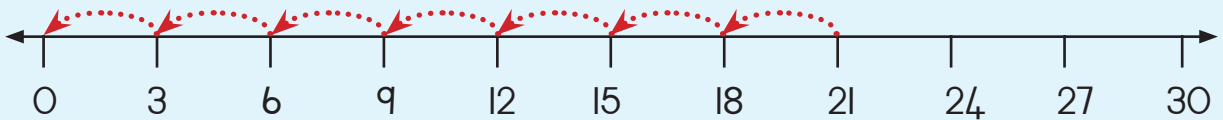
Example:



$$16 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 = 0$$

$$16 \div 2 = 8$$

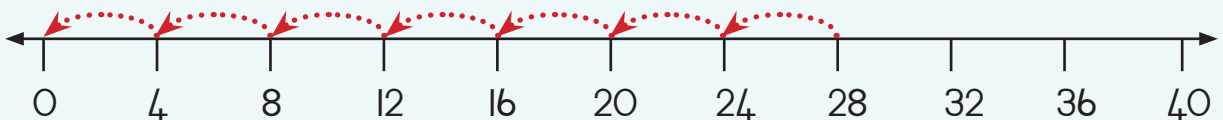
a.



$$21 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\boxed{\hspace{1cm}} \div \boxed{\hspace{1cm}} = \underline{\hspace{2cm}}$$

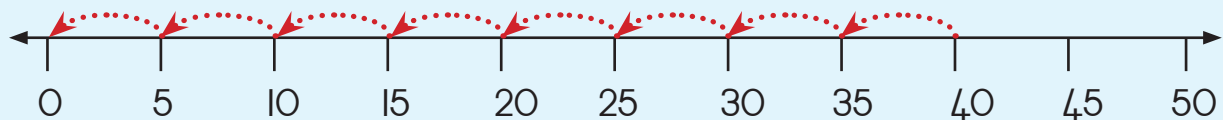
b.



$$28 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

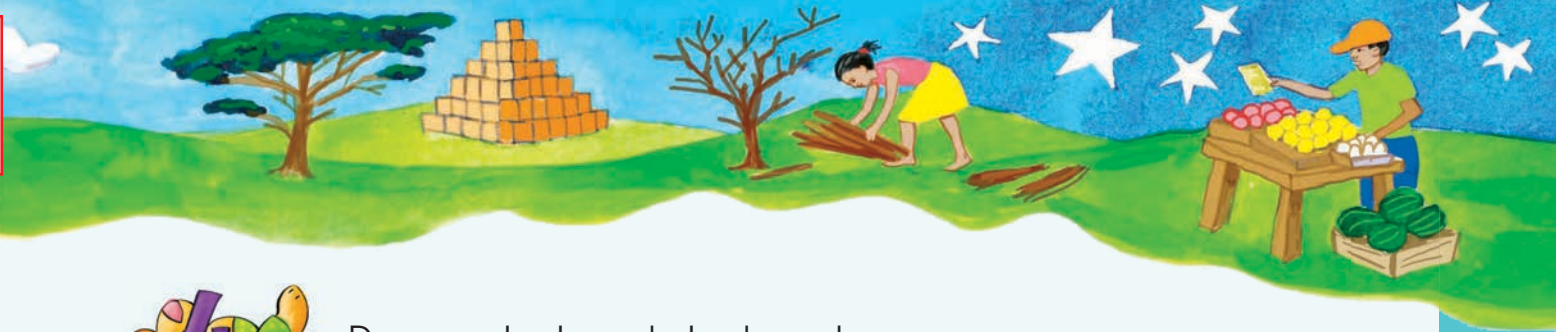
$$\boxed{\hspace{1cm}} \div \boxed{\hspace{1cm}} = \underline{\hspace{2cm}}$$

c.



$$\underline{\hspace{1cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\boxed{\hspace{1cm}} \div \boxed{\hspace{1cm}} = \underline{\hspace{2cm}}$$



Draw a number line and solve the number sentences.

a. $30 \div 5 =$



b. $22 \div 2 =$



c. $27 \div 3 =$



d. $32 \div 4 =$



e. $25 \div 5 =$



Challenge

Show all the ways you can divide 24 sweets equally between different groups of children.

Write a number sentence to show your answer.



Teacher:

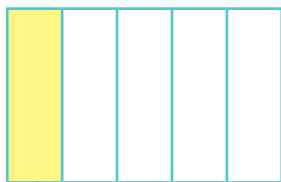
Sign:

Date:

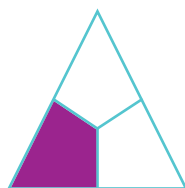
Fractions



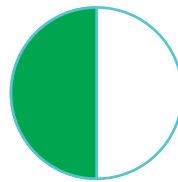
Draw lines to match the shape with the fraction



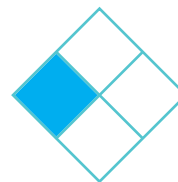
One third $\frac{1}{3}$



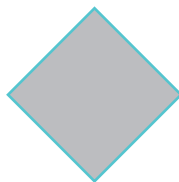
One fifth $\frac{1}{5}$



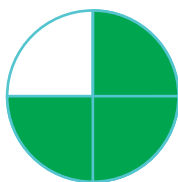
One quarter $\frac{1}{4}$



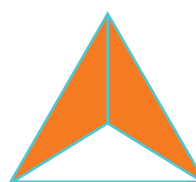
One half $\frac{1}{2}$



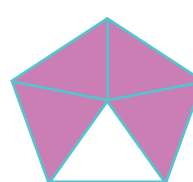
Three quarters $\frac{3}{4}$



Four fifths $\frac{4}{5}$

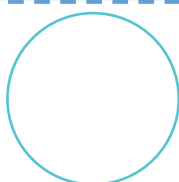


One whole 1

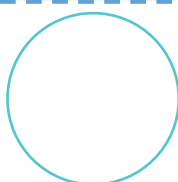


Two thirds $\frac{2}{3}$

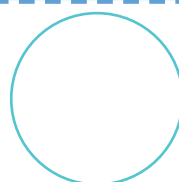
Divide and then colour the shape to show the fraction:



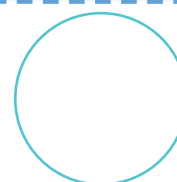
One half $\frac{1}{2}$



One third $\frac{1}{3}$

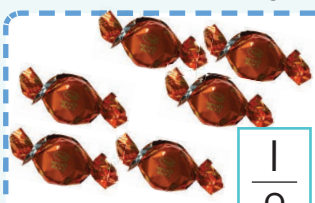


One quarter $\frac{1}{4}$

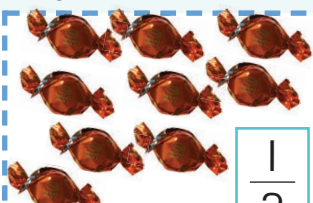


One fifth $\frac{1}{5}$

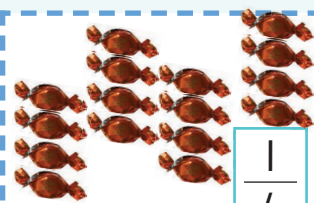
Show the fraction by drawing a line around the correct number of sweets:



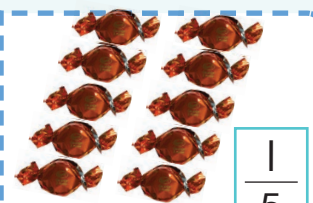
One half $\frac{1}{2}$



One third $\frac{1}{3}$



















































One quarter $\frac{1}{4}$



One fifth $\frac{1}{5}$


























Share the counters between the two children.

<div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></div></div></div>					<div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></div></div></div>					<div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></div></div></div>					<div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></div></div></div>				
																			
																			
																			
																			
																			
																			
																			
																			
<div><div><div>• We got 2 counters each.</div><div>• Half of 4 counters is 2.</div></div></div>	<div><div><div>• We got _____ counters each.</div><div>• _____ of _____ counters is _____.</div></div></div>	<div><div><div>• We got _____ counters each.</div><div>• _____ of _____ counters is _____.</div></div></div>	<div><div><div>• We got _____ counters each.</div><div>• _____ of _____ counters is _____.</div></div></div>																
<div><div>4 ÷ 2 = 2</div></div>	<div><div>_____ ÷ _____ = _____</div></div>	<div><div>_____ ÷ _____ = _____</div></div>	<div><div>_____ ÷ _____ = _____</div></div>																



Share the sweets between the children.

															
<table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>									<table border="1"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>						
															
															
<ul style="list-style-type: none">• one quarter of the sweets = 3• two quarters of the sweets = ____• three quarters of the sweets = ____• four quarters of the sweets = ____	<ul style="list-style-type: none">• one third of the sweets = ____• two thirds of the sweets = ____• three thirds of the sweets = ____														



Teacher: _____
Sign: _____
Date: _____

It's about time

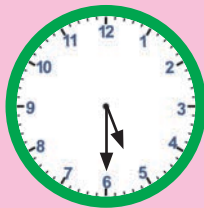


Clockwise

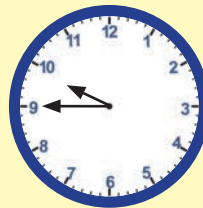
We can write the same time in different ways.



2:15
quarter past two

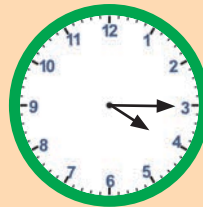
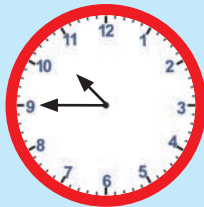
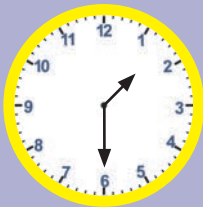


5:30
half past five



9:45
quarter to ten

Write these times in 2 different ways.



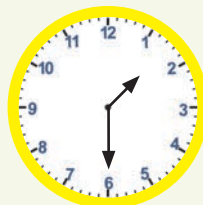


Going home

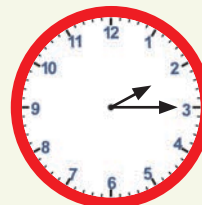
How long does Ben take to get home?

minutes

hours



Ben leaves school.



Ben gets home.



Time flies

Time in 2s ...



How many ...

minutes in 2 hours? _____

hours in 2 days? _____

days in 2 weeks? _____

months in 2 years? _____



How many days?

April 27 is Freedom Day.

June 16 is Youth Day.

- a. From Freedom Day to Youth Day there is _____ months,
_____ whole weeks and _____ days.

- b. How many whole weeks in all? _____

How many days left over? _____. How many days in all? _____.

- c. Lebo's birthday is 7 days before Freedom Day.

Musa's birthday is two days after Youth Day.

Who is older? _____ By how many days? _____

April						
M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May						
M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June						
M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Check. Compare.
Correct.

Teacher: _____
Sign: _____
Date: _____

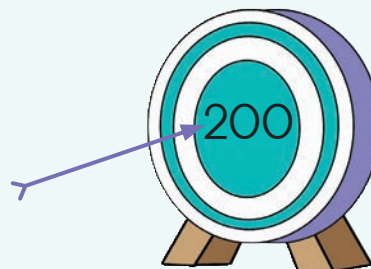


Target 200



Counting the numbers

Count and say all the numbers from 101 to 200.
Point as you go.



101	102								
111									
121									
131									
								149	
			154						
				165					
		173							180
181					186				
							198		200



Writing the numbers

- Write the missing number in each blue square.
- Write in the rest of the numbers.
- Write the next 10 numbers after 200.

200; _____; _____; _____; _____; _____; _____; _____; _____; _____



Write the missing numbers

a.

200		180			
					110
50					
				0	

b.

87		107	
167			
		207	
			237



Complete

200	+	30	+	5	=	235
200	+	40	+	7	=	_____
200	+	60	+	8	=	_____
	+		+		=	293
	+		+		=	256

Write the numbers in order from smallest to biggest.



Counting on from 100

Work out what you need to get to the next number.

Start

100	→	+25	→	125	→		→	129	→		→	138

End

168	←		←	157	←		←	151	←		←	145



Teacher: _____

Sign: _____

Date: _____

Working with groups of numbers



Packing candles

Ma Nkosi works at a candle factory.

When the candles are ready, she packs them out like this in boxes on racks.



How many candles in each box? _____

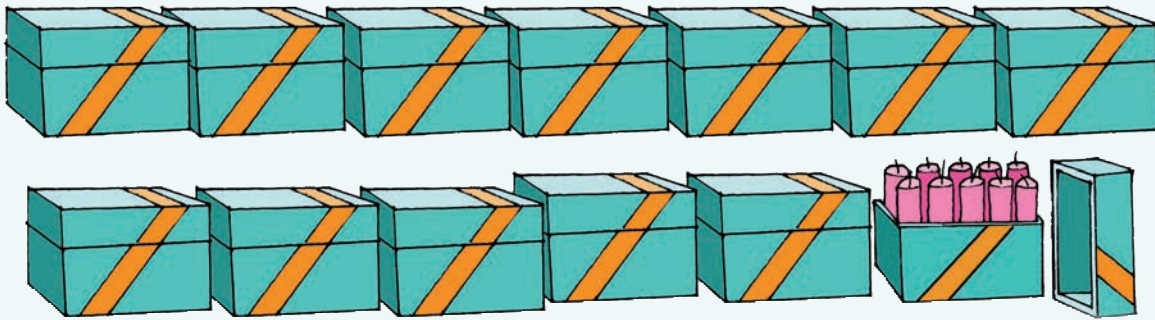
How many boxes on each rack? _____

How many candles on each rack? _____



Boxes of candles

Ma Nkosi closes the boxes.









- a. Count all the boxes.

How many boxes? _____





How many candles altogether? _____

How many more boxes does she need to fill to have 200 candles? _____

- b. How many candles in:

2 boxes? _____ 	4 boxes? _____ 
5 boxes? _____ 	3 boxes? _____ 
6 boxes? _____ 	7 boxes? _____ 

- c. How many boxes does she need for:

40  _____ boxes	70  _____ boxes
50  _____ boxes	30  _____ boxes



Date: _____

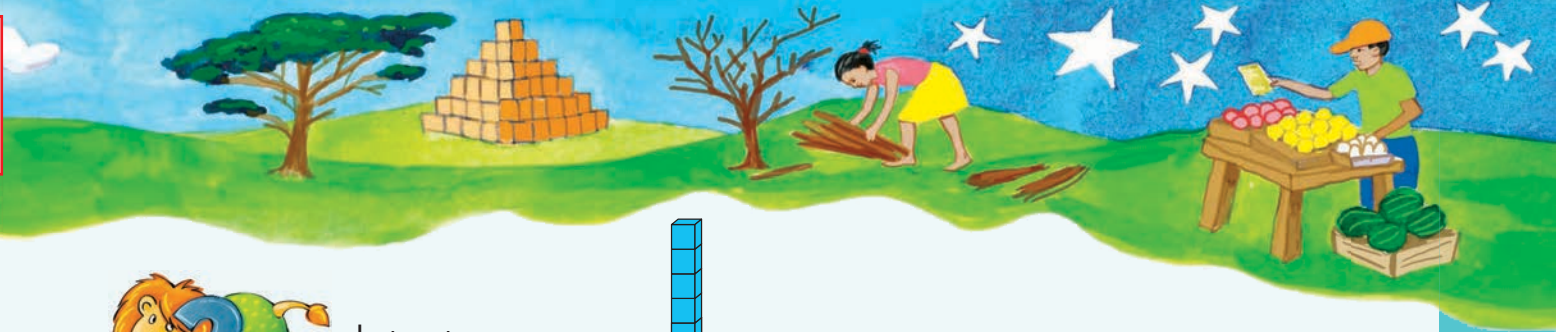
Putting tens together and taking them apart



Putting tens together when we add.

<p>Let's add $56 + 73 =$</p>		+	
	5 tens and 6 units		7 tens and 3 units

100s	10s	1s
<p>Together we have 12 tens. We can put 10 tens together to make 1 hundred.</p>		



Let us try.

Example: $82 + 34$



=



$$100 + 20 + 6 = 126$$

a. $65 + 52$

b. $76 + 63$

c. $86 + 65$



Teacher: _____

Sign: _____

Date: _____



Date:

Putting tens together and taking them apart (continued)



Use your place value blocks.

Use base ten blocks to make these two numbers.	All together how many tens? how many units?	Did you group tens or units? Check the place value where you regrouped.	Write the number.
$23 + 99 =$	_____ tens _____ units	11 tens + 12 units $= 110 + 12$	122
$38 + 25 =$	_____ tens _____ units		
$77 + 31 =$	_____ tens _____ units		
$68 + 45 =$	_____ tens _____ units		
$83 + 47 =$	_____ tens _____ units		



Taking tens apart when we subtract

When we subtract, we sometimes need to show one ten as ten units, or one hundred as 10 tens.

Let's subtract: $60 - 55 =$

We start with six tens and no units. We want to subtract five tens and five units.
(The units we are taking away we coloured grey.)

We can show six tens like this.	Or as five tens and ten units.	Take away five tens and five units. Five units are left.	
		$60 - 55 = 5$	



Let us try.

a. $70 - 28$

7 tens	6 tens and 10 units	$70 - 28 =$	

b. $90 - 46$

c. $80 - 53$



Finding the number pair

a.

200	
30	

b.

200	
70	

c.

200	
	105

d.

200	
85	



Teacher: _____
Sign: _____
Date: _____



Date:


A visit to the dentist









A group of children visit the dentist.









How many times a day
do you brush your
teeth?

This is what the children tell him.  = 1 time

	✓	✓	✓	✓	✓	✓	✓	✓	✓					
 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
  	✓	✓	✓	✓	✓									

a. Count the ticks (✓) showing how often children brush their teeth. Write the numbers.

 Once a day	
  Twice a day	
   Three times a day	

b. What can you see from the table?

Most of the children brush _____ a day.

There are _____ children in the group.



Draw a pictograph of how many times a day the children brush their teeth.



Do a survey in your class. Ask 15–20 learners.

- How many times a day they brush their teeth? _____
- Draw a pictograph like the one above to show your findings.



Add and combine



Writing out your sum

Busi can add **units** and **tens** and regroup them. She can add and subtract on paper, without blocks. Sometimes she likes to start with her number cards to show the numbers.

So for the sum $56 + 73$, she finds these cards:

$$\begin{array}{|c|c|} \hline 5 & 0 \\ \hline \end{array} \begin{array}{|c|} \hline 6 \\ \hline \end{array} + \begin{array}{|c|c|} \hline 7 & 0 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array}$$

She adds the units and puts down the 9 card.

9

She knows: $50 + 70 = 120$.

She takes the **hundreds**, the 20 and the 9 card to make a 3-digit number.

$$\begin{array}{|c|c|c|} \hline 1 & 0 & 0 \\ \hline \end{array} \begin{array}{|c|c|} \hline 2 & 0 \\ \hline \end{array} \begin{array}{|c|} \hline 9 \\ \hline \end{array}$$

She writes it out like this:

$$\begin{aligned} &50 + 70 + 6 + 3 \\ &= 50 + 70 + 9 \\ &= 120 + 9 \\ &= 100 + 20 + 9 \\ &= 129 \end{aligned}$$

Dumi knows how the blocks work.

She does $56 + 73$ like this:

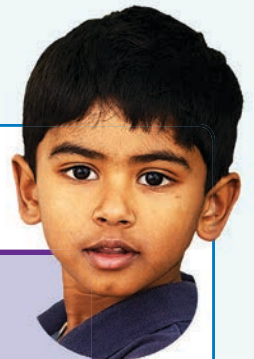
$$\begin{array}{r} 50 + 6 + 70 + 3 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 120 + 9 \\ = 129 \end{array}$$



Aakar likes to round off.

Here's how he does this one:

$$\begin{aligned} &56 + 73 \\ &= 50 + 70 + 10 - 1 \\ &= 130 - 1 = 129 \end{aligned}$$





Now try for yourself. Do each one in two ways.

a. $86 + 62$

Busi's method

$$80 + 60 + 6 + 2$$



Dumi's method

$$80 + 6 + 60 + 2$$



b. $72 + 63$

c. $81 + 57$

d. $69 + 71$

Use Aakar's method to do this one.



Teacher: _____

Sign: _____

Date: _____

Add and combine (continued)



Now let's subtract.

a. $87 - 53$

Busi's method

$$\begin{aligned} 80 - 50 + 7 - 3 \\ = 30 + 4 \\ = 34 \end{aligned}$$



Dumi's method

$$\begin{aligned} 80 + 7 - 50 + 3 \\ = 30 + 4 \\ = 34 \end{aligned}$$



b. $95 - 73$

c. $86 - 62$

d. $85 - 69$



Solve it!

There are many ways to add **units** and **tens** together. Choose the way you know and like best to solve these problems. Show your work.

- a. Peter first picks 34 peaches and then 67 peaches.
How many peaches altogether?



- b. The Malusi kids save R47 together.
Their mother gives them another R58. How much do they have now?



- c. The school bus travels 88 km in the morning and 73 km in the afternoon.
How many km altogether?



Date: _____

Solve it!

Use any method you like. Show your work.



Bottle tops



Sipho



Andile

Sipho counts out 87 bottle tops. Andile counts out 38.
How many more bottle tops does Sipho count than Andile?



The school concert



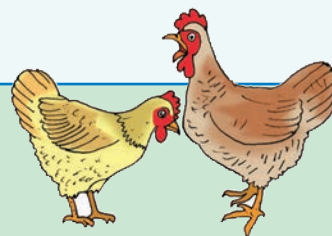
Musa



Musa sells tickets. He had 92 tickets to begin with. He has 67 left.
How many tickets has Musa sold so far?



More practice



There are 69 chickens in one pen and 95 in another.
How many chickens are there altogether?
Read how Gugu and Aakar solve the problem.

Gugu's way

$$\begin{aligned} 60 + 90 + 9 + 5 \\ = 100 + 50 + 14 \\ = 150 + 10 + 4 \\ = 164 \end{aligned}$$



Aakar's way

$$\begin{aligned} 69 + 95 \\ = 70 + 95 - 1 \\ = 70 + 90 + 5 - 1 \\ = 160 + 4 \\ = 164 \end{aligned}$$

I subtracted 1.
Do you know why?



- a. The boys collect R96 for a class trip. The girls collect R79.
How much do they collect altogether?

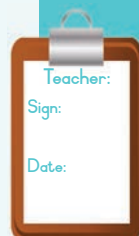
Use Gugu's way

Use Aakar's way

- b. One school collects 76 kg of cans. Another school collects 68 kg cans.
How many kg of cans do the two schools collect altogether?

Use Gugu's way

Use Aakar's way



Teacher:

Sign:

Date:

Count and calculate



Finding the part

Write in the missing numbers.

- a.

100	
	27
- b.

100	
39	
- c.

100	
43	
- d.

100	
56	
- e.

200	
140	
- f.

200	
	110
- g.

200	
135	
- h.

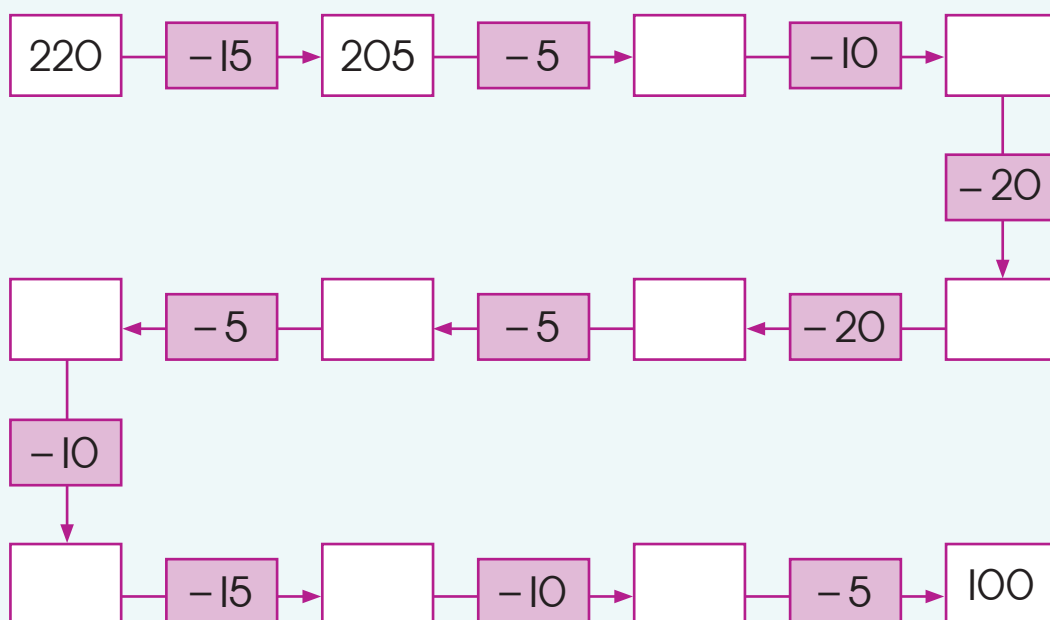
200	
	120



Subtracting back from 220 to 100

Subtract the numbers in the pink box each time.

We have done the first one for you.



Here is a way to check your answers.

Start at 100. Work back to 220.

But this time, add the numbers.

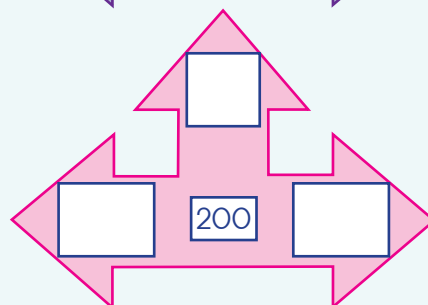
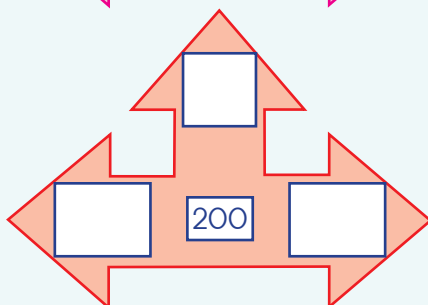
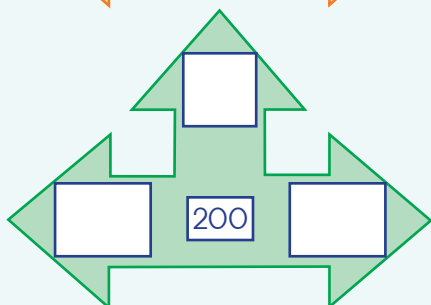
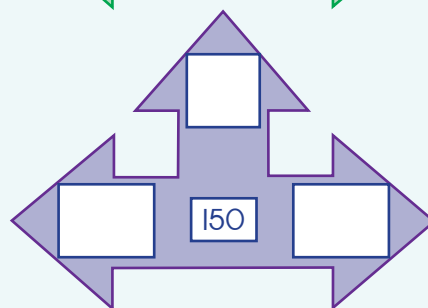
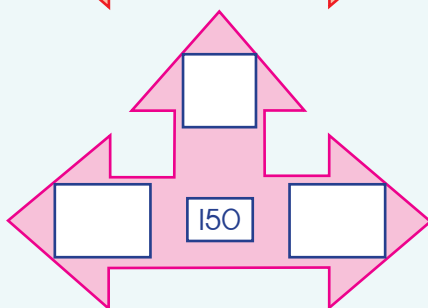
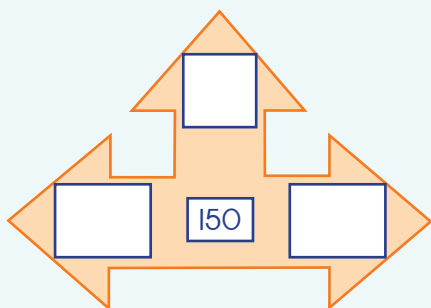
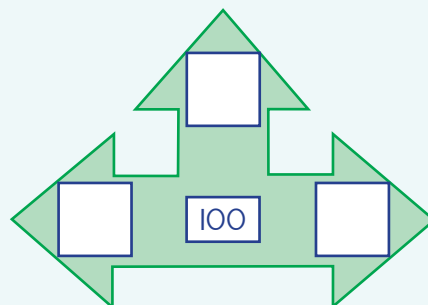
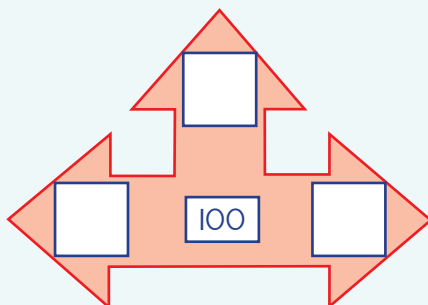
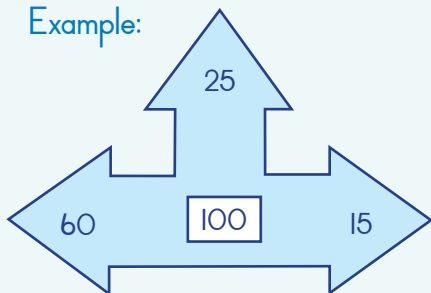


Families of three

Find 3 numbers that add up to the target number.

Rule: Only one number can end in 0.

Example:



50 more and 50 less

Write the answers in the 2nd row.

+50	70	125	150	81	96	122	134	111	70
	120								
-50	186	200	158	179	139	79	126	138	99
	136								



Teacher: _____

Sign: _____

Date: _____



Measuring in centimetres



How big is a centimetre?



The numbers on the ruler stand for **centimetres**.

We use the abbreviation or symbol **cm**.

When you use a ruler, you must start to measure from 0.

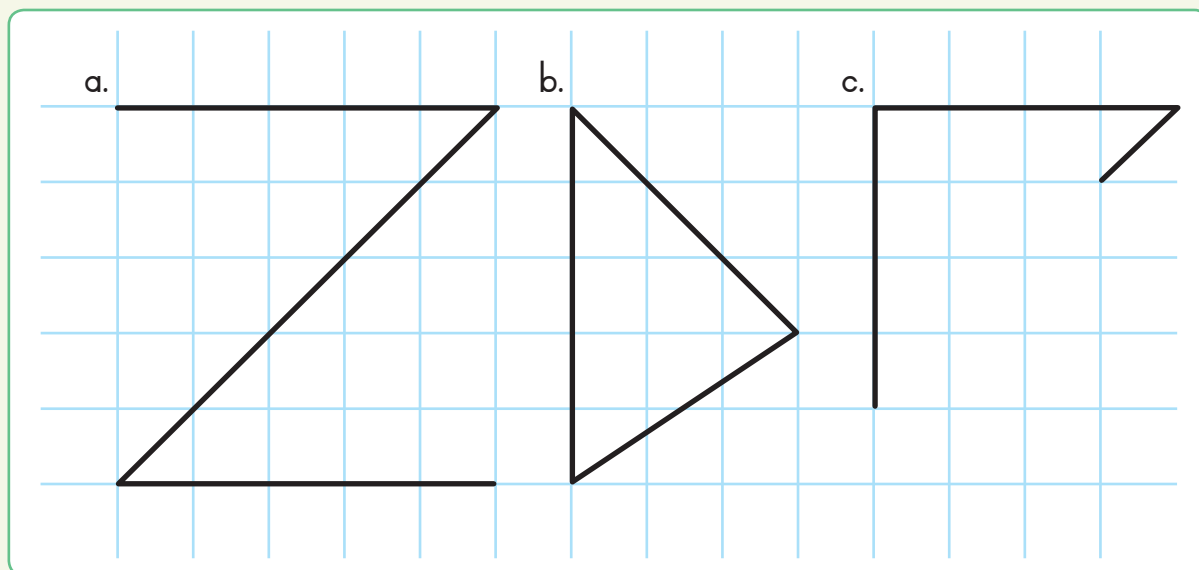
Some rulers do not show the 0 like the one on this page.

Find zero cm on the ruler. Write 0 on the ruler.

Where is 10 cm on this ruler? Write 10 there.



Estimate, then measure accurately with your ruler, the length in cm of the line making each shape.



a. Estimate <input type="text"/> cm	b. Estimate <input type="text"/> cm	c. Estimate <input type="text"/> cm
Measure <input type="text"/> cm	Measure <input type="text"/> cm	Measure <input type="text"/> cm



How long is each line?

How many cm long is each line?

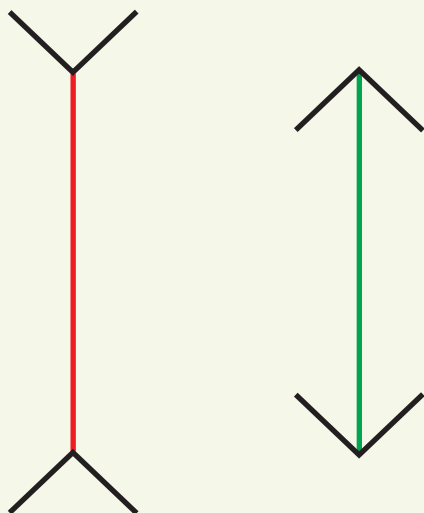
a. _____ <input type="text"/> cm	d. <input type="text"/> cm
b. _____ <input type="text"/> cm	e. _____ <input type="text"/> cm
c. _____ <input type="text"/> cm	f. _____ <input type="text"/> cm



Are you sure?

Which is longer, the red line or the green line?

How can you check?



This is what is called an optical illusion.
This happens when your eyes are tricked into seeing something that is not really there.
The two lines are the same length.
The black lines extending outward make the red line look longer and the black lines going inwards make the green line look shorter.



Teacher: _____
Sign: _____
Date: _____

Target 300



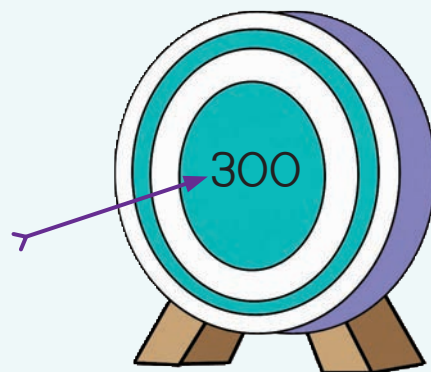
Counting and writing the 200s

Count from 201 to 300.

Point as you go.

Then fill in the blue numbers first.

Write in the rest of the numbers.



201						207			210
211									
221									
231									
								249	
			254						
				265					
		273							280
281					286				
							298		300

Write the next 10 numbers after 300.

300; _____; _____; _____; _____; _____; _____; _____; _____; _____



What's the jump?

301		281					
		171					211
					101		



Showing and comparing

a. Write the numbers that go in each card.

298;	208;	301;	276;	227;	269;	311
2 0 0						
9 0						
8						

b. Write the numbers in order from smallest to biggest.

_____ ; _____ ; _____ ; _____ ; _____ ; _____ ; _____



Write the missing numbers.

Start

200	+25	225		237		249

End

300		286		278		261

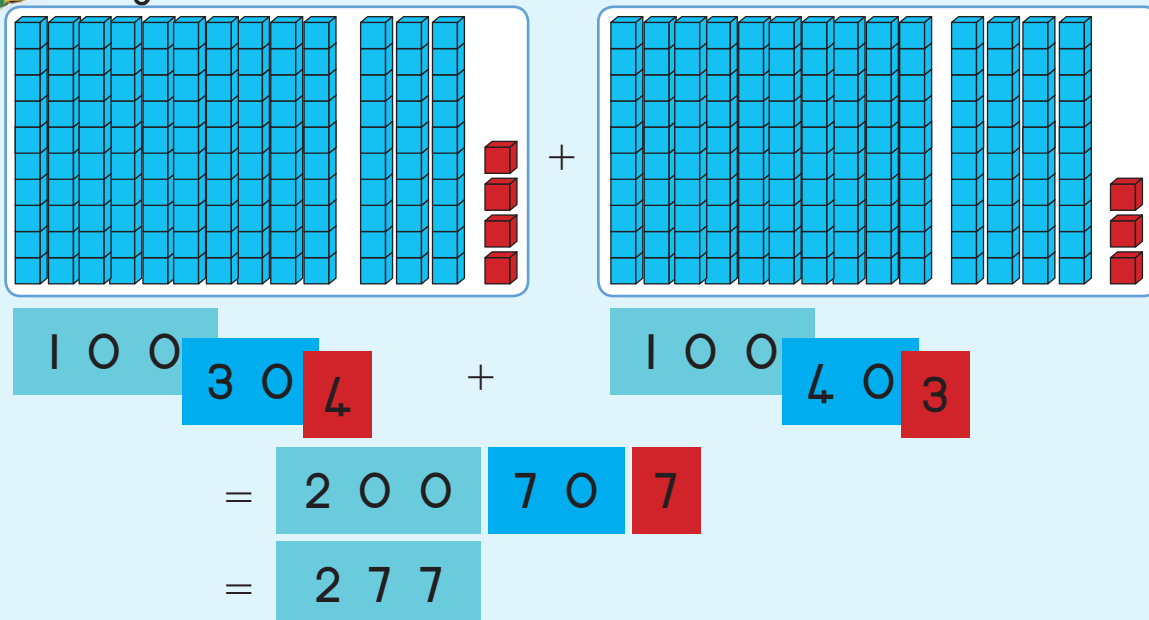


Teacher: _____
Sign: _____
Date: _____

Adding and subtracting with 100s



Using blocks to add



Follow the two methods. Show each answer in two ways.

a. $132 + 123$

Busi's method

$$\begin{aligned}
 &= 100 + 100 + 30 + 20 + 2 + 3 \\
 &= 200 + 50 + 5 \\
 &= 255
 \end{aligned}$$



Dumi's method

$$\begin{aligned}
 &132 + 123 \\
 &= 200 + 50 + 5 \\
 &= 255
 \end{aligned}$$



b. $114 + 162$



c. $276 + 148$



Study each method. Work out each sum in two ways.

a. $158 - 146$

Busi's method

$$\begin{aligned} &= 100 - 100 + 50 - 40 + 8 - 6 \\ &= 0 + 10 + 2 \\ &= 12 \end{aligned}$$



Dumi's method

$$\begin{aligned} &158 - 146 \\ &= 0 + 10 + 2 \\ &= 12 \end{aligned}$$



b. $194 - 122$

c. $288 - 199$



Teacher:
Sign:
Date:

Date: _____



Target 400

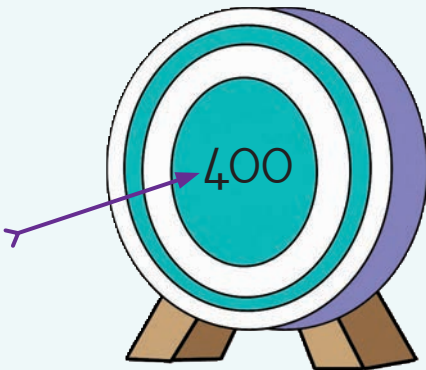


Counting and writing the 400s

Count on from 300 to 400.

Say the numbers as you go.

Write the missing numbers on the grid.



301									310
				315					
									330
331				335					
								249	
				365			368		
		273							
									390
									400

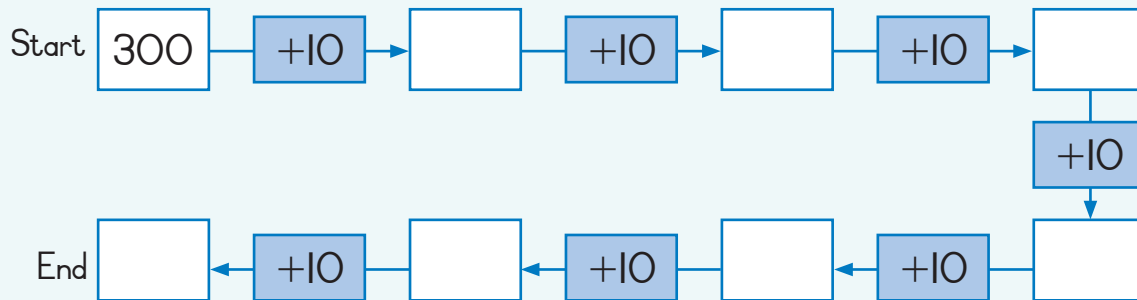
Write the next 9 numbers after 400.

400; _____; _____; _____; _____; _____; _____; _____; _____; _____

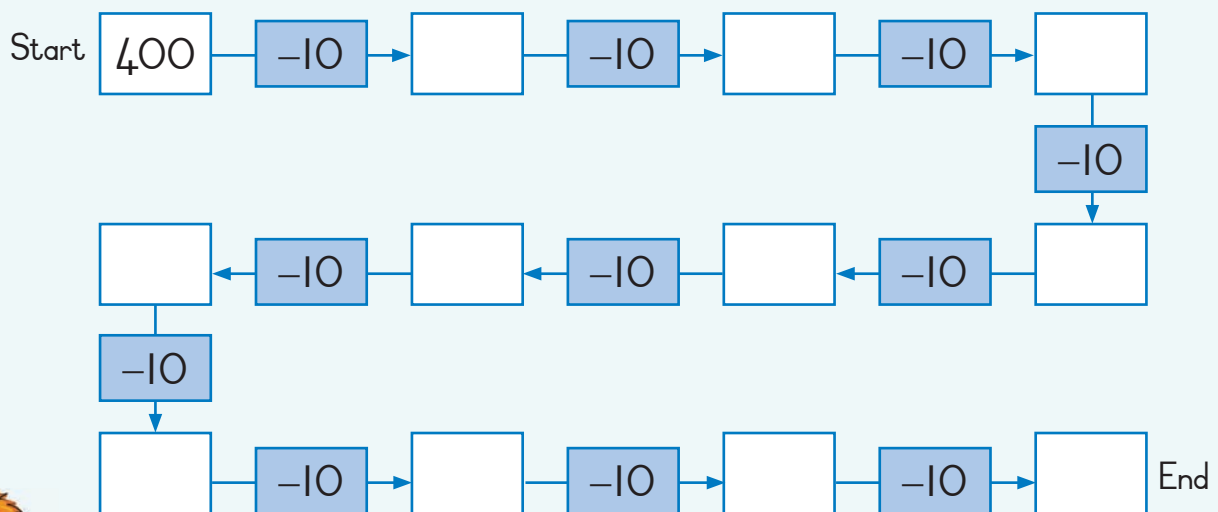


Count forwards and backwards

a. Counting forward from 300 in tens.



b. Count back from 400 in tens.



Write as one number

$$300 + 20 + 4 = \underline{\hspace{2cm}}$$

$$300 + 50 + 3 = \underline{\hspace{2cm}}$$

$$300 + 60 + 2 = \underline{\hspace{2cm}}$$

$$300 + 80 + 1 = \underline{\hspace{2cm}}$$

$$300 + 10 + 5 = \underline{\hspace{2cm}}$$

$$300 + 70 + 7 = \underline{\hspace{2cm}}$$

$$300 + 90 + 9 = \underline{\hspace{2cm}}$$

$$300 + 40 + 8 = \underline{\hspace{2cm}}$$

Write the answers in order from smallest to biggest.

 , , , , , ,



Teacher: _____
Sign: _____
Date: _____

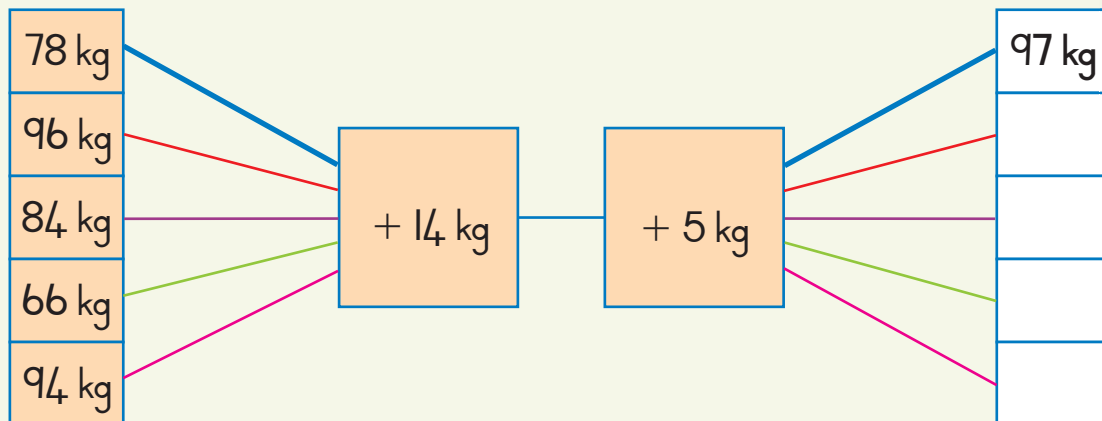


Weighing in



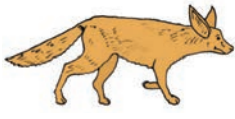




Add some kilograms.

Add and write the answers.



Rounding off and adding!

Think smart!

				
Jackal 25 kg	Tortoise 98 kg	Baboon 59 kg	Baby zebra 88 kg	Pelican 9 kg

Round off the mass of each animal to the nearest 10 kg.

Write the mass of each animal in order from light to heavy.

Estimate the total mass of the 5 animals.



Combine their mass











I may not be as heavy as you, old Tortoise,
but I sure am faster!



Steps



- Use your rounded off amounts to estimate.
- Estimate the mass of the animals in each row.
- Calculate the totals using the actual mass.
- Compare the two totals and write the difference.

	I estimate	I calculate	The difference
 + 			
 +  + 			
 +  + 			



Vusi's mass

Check. Compare. Correct.

Vusi adds his own mass to the mass of  and .

Their total mass is 239 kg. How much does Vusi weigh? Show your answer.



What's my weight?

Play in a group. Take turns ...

Add your mass to the mass of some of the animals. Work out the total. Tell the answer to the group. Don't show them your work!
They must then try and work out your mass.



Teacher: _____

Sign: _____

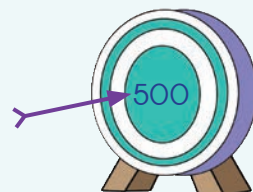
Date: _____



Target 500

Counting and writing

400



401				405					410
411									420
	422					427			
			434						
					446				
							458		
	462								470
		473				477			
481									490
								499	500

- Count on from 400. Say the numbers as you go.
- Write the missing numbers in the grid.
- Write the next 9 numbers after 500.

500; _____; _____; _____; _____; _____; _____; _____; _____; _____

- Count in 2s. Write the next 8 numbers in the **2s pattern**.

400; 402; _____; _____; _____; _____; _____; _____; _____

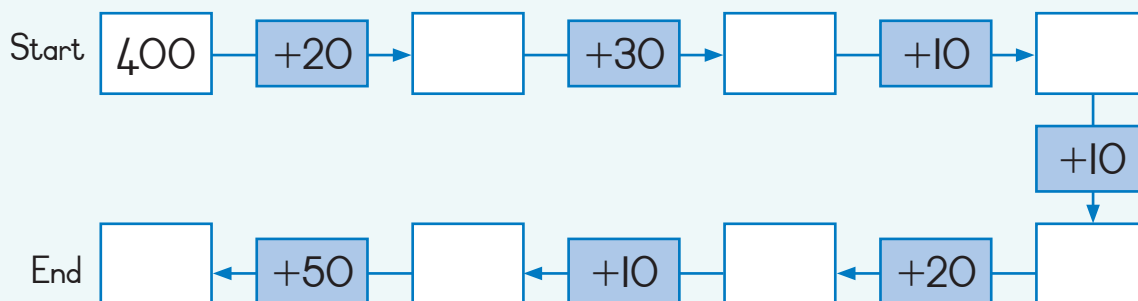
- Count in 5s. Write the next 8 numbers in the **5s pattern**.

400; 405; _____; _____; _____; _____; _____; _____; _____

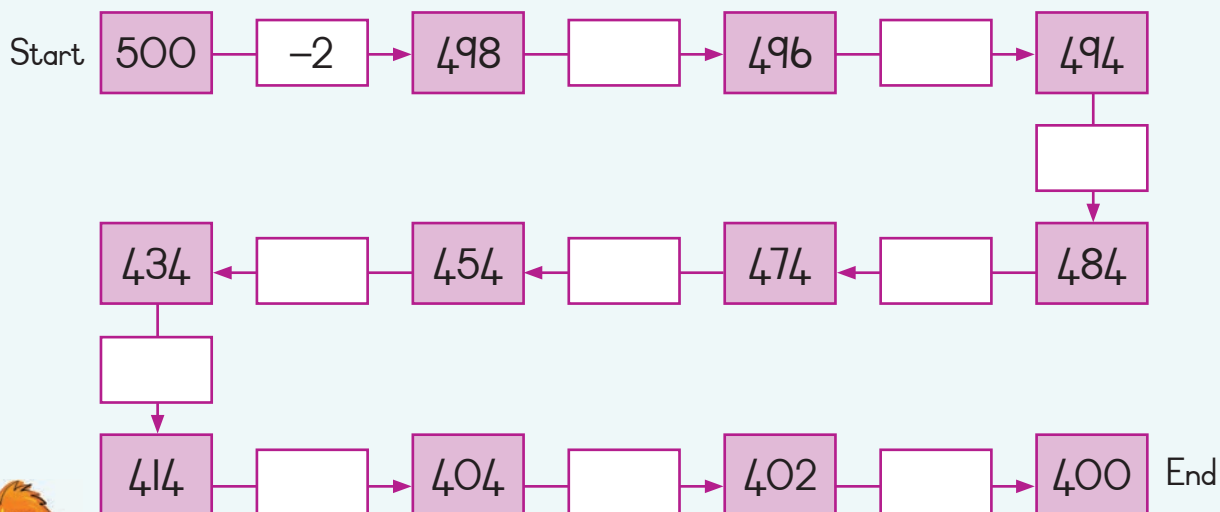


Fill in the missing numbers.

a. Add forward from 400.



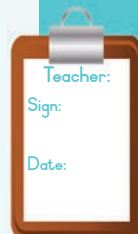
b. Count back from 500.



Showing the numbers. Follow the example.

Find the totals. Use your number cards to show each total.

$405 + 10$	415	$400 + 10 + 5$	$398 + 10$		
$446 + 10$			$424 + 10$		
$455 + 10$			$460 + 20$		



Date: _____

More adding and subtracting

$\begin{array}{r} 200 \\ 200 \\ 50 \\ 30 \\ 4 \\ 5 \end{array}$	$\begin{array}{r} 400 \\ 80 \\ 9 \end{array}$	489
---	---	-------



You are going to use Busi's and Dumi's methods again to add.

a. $245 + 231$

Busi's method

$$\begin{aligned} &= 200 + 200 + 40 + 30 + 5 + 1 \\ &= 400 + 70 + 6 \\ &= 476 \end{aligned}$$



Dumi's method

$$\begin{aligned} &245 + 231 \\ &= 400 + 70 + 6 \\ &= 476 \end{aligned}$$



b. $278 + 136$

Blank area for Busi's method.

Blank area for Dumi's method.

c. $265 + 148$

Blank area for Busi's method.

Blank area for Dumi's method.



We are going to use Busi's and Dumi's methods to subtract.

a. $476 - 324$

Busi's method

$$\begin{aligned}
 &= 400 - 300 + 70 - 20 + 6 - 4 \\
 &= 100 + 50 + 2 \\
 &= 152
 \end{aligned}$$



Dumi's method

$$\begin{aligned}
 &476 + 324 \\
 &= 100 + 50 + 2 \\
 &= 152
 \end{aligned}$$

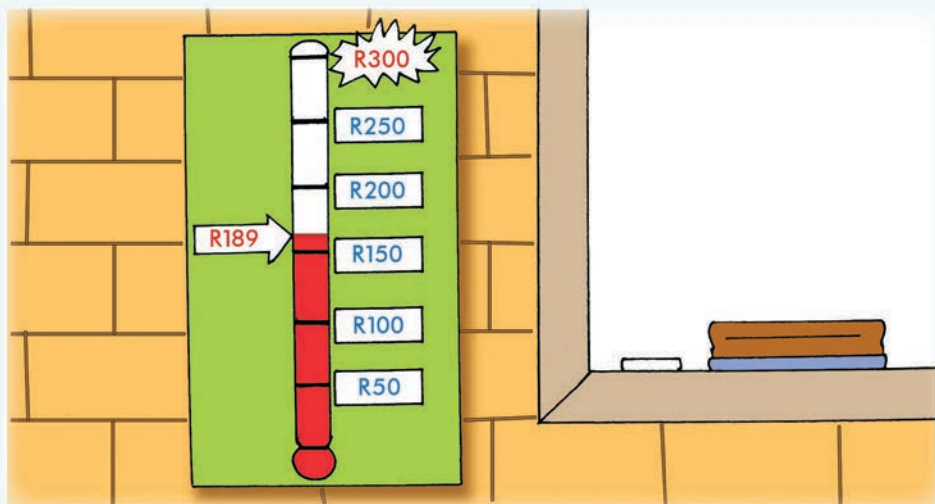


b. $489 - 456$

c. $482 - 161$



Reaching the target



Study the picture.

How much more to reach the target?

R



Teacher: _____

Sign: _____

Date: _____

Sharpen your skills



Secret mountain

What's the name of the highest mountain in Gauteng? Use the code to find out.

Match each answer in the table to a letter in the code.

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

Number clues	Answer	Letter
Example: $2 \times 3 \times 3 \times 1 = \square$	18	R
$50 + 50 + 50 + 100 - 200 - 45 = \square$		
$1 + 2 + 7 + 10 + 7 + 1 - 14 = \square$		
$60 - 30 + 50 + 20 - 50 - 15 - 20 = \square$		
$3 + 2 + 7 + 1 + 2 + 1 + 3 = \square$		
$5 + 3 + 30 = 4 + 2 + 12 + \square$		
$100 - 5 - 70 = 20 + \square$		
$36 + 44 - 60 - 2 = \square$		
$10 + 15 = 14 + \square$		
$2 + 1 + 14 + 9 + 14 = 25 + \square$		
$1 \times 2 \times 2 \times 2 \times 2 = \square$		

The mountain's name is



Look, think and answer!

☐ * ☐ ☐ * ☐ ☐ * ☐ * ☐ * ☐ * ☐ * ☐ * ☐ * ☐ * ☐ * ☐ *

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

a.

What shape will number 16 be? Tick (✓) the right one.

* ☐ ☐

What shape will number 18 be? Tick (✓) the right one.

* ☐ ☐

What shape will number 23 be? Tick (✓) the right one.

* ☐ ☐

b.

Number 50 will be a *.

True or False?

Number 100 will be a ☐.

True or False?

Number 28 will be a ☐.

True or False?



Which is more?

To get R2,50 a day pocket money for June and July.

Or to get R150 total pocket money for the two months?

Show how you worked it out.

Check. Compare. Correct.



Teacher:

Sign:

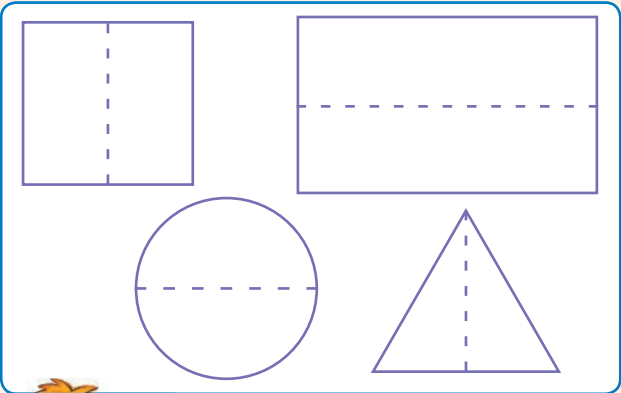
Date:

11 12 13 14 15 16 17 18 19 20

Date: _____

Symmetry

What do you notice about these shapes?



A line of symmetry divides a shape into two halves so that each half is a mirror-image of the other.

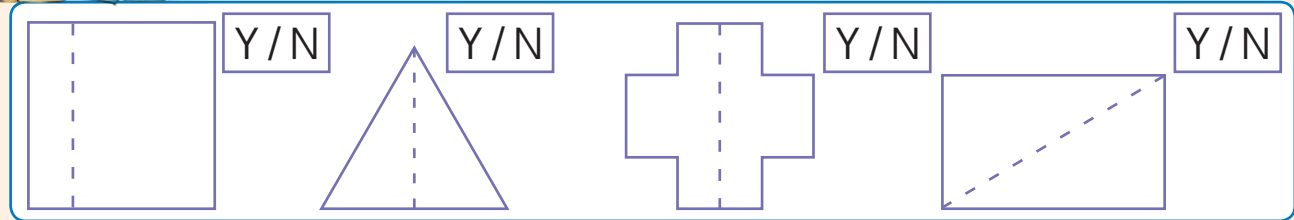
A shape has symmetry if you can fold it along the line of symmetry so that the two halves match exactly.



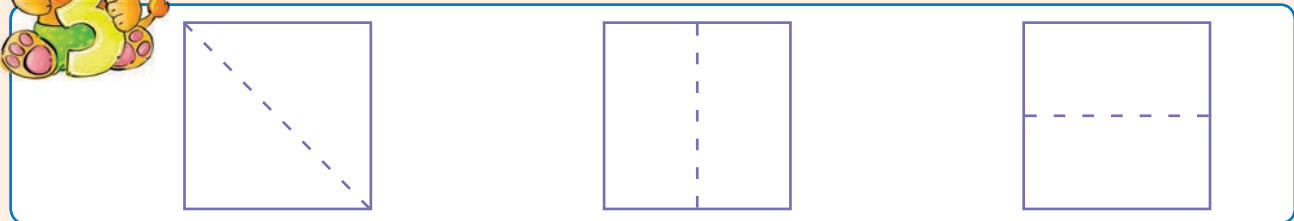
Draw a line of symmetry for each shape.

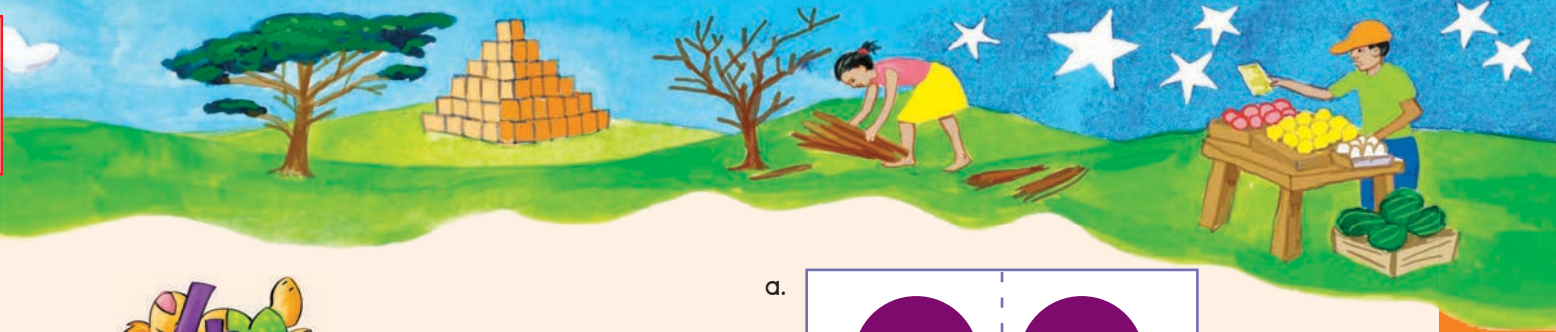


Is the dotted line a line of symmetry or not. Circle the (Y) Yes or (N) No.



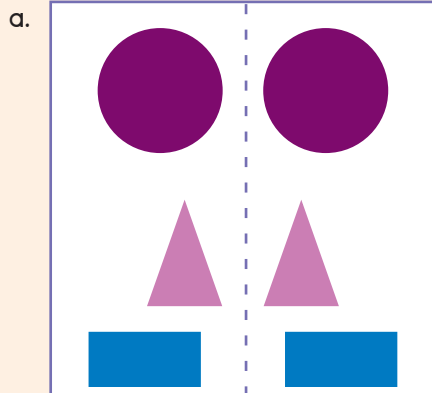
Is this a line of symmetry? Why?



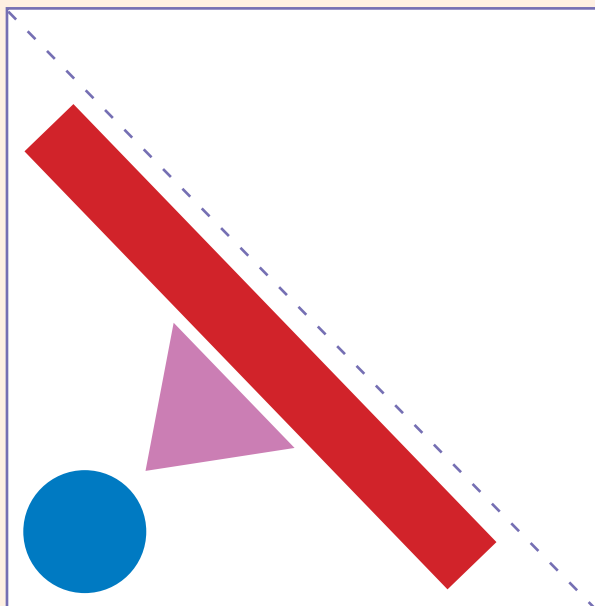


Draw shapes to make the picture symmetrical.

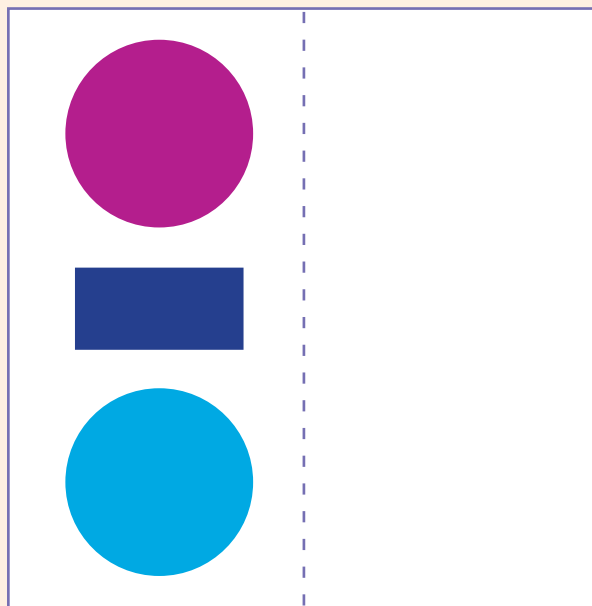
We have done the first one for you.



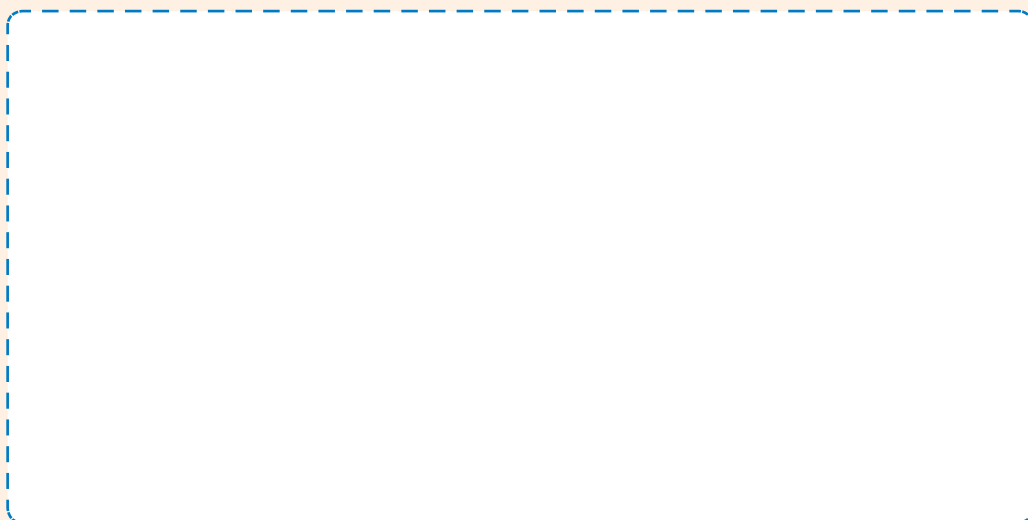
b.

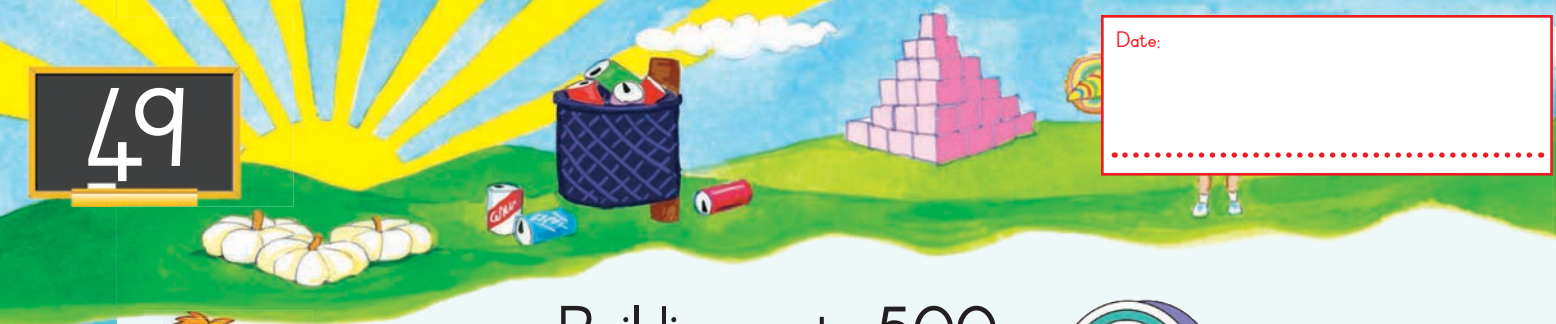


c.



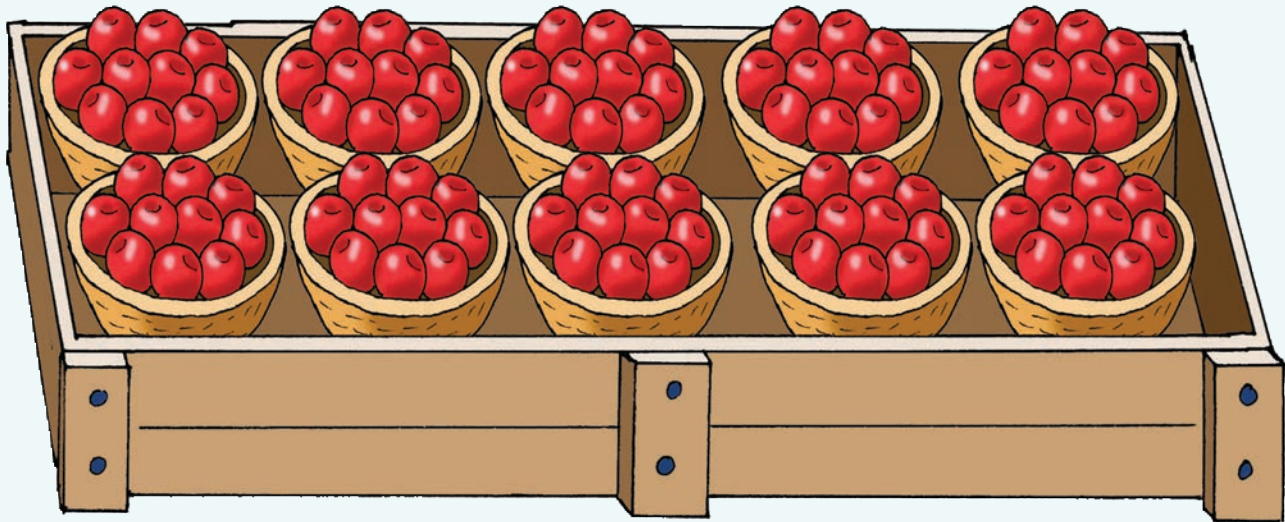
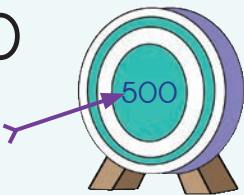
Create your own symmetrical carpet using shapes.





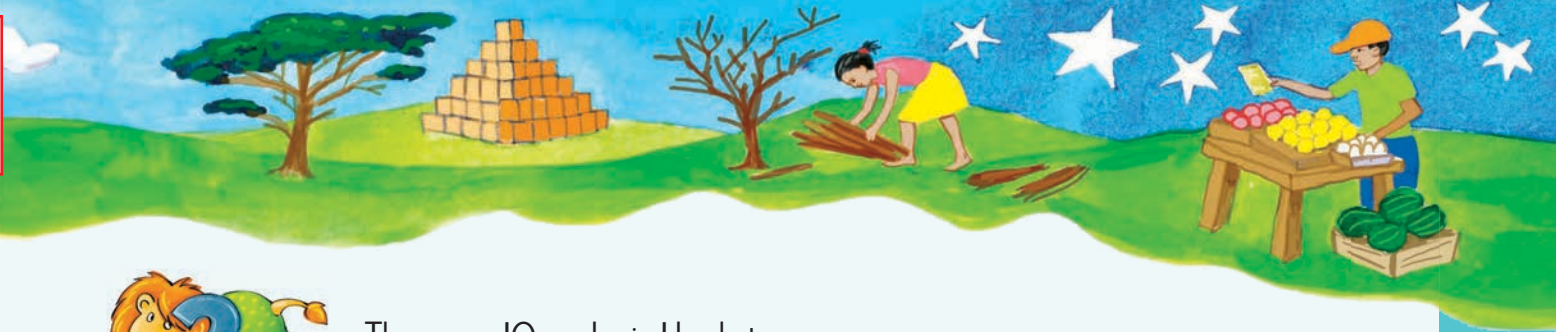
Counting the apples.

Building up to 500



Complete and multiply

1 basket holds _____ apples.	$1 \times 10 = 10$
3 baskets hold _____ apples.	$3 \times 10 =$
5 baskets hold _____ apples.	
4 baskets hold _____ apples.	
2 baskets hold _____ apples.	
1 crate holds 100 apples.	2 crates hold _____ apples.
3 crates hold _____ apples.	4 crates hold _____ apples.
5 crates hold _____ apples.	2 half crates hold _____ apples.

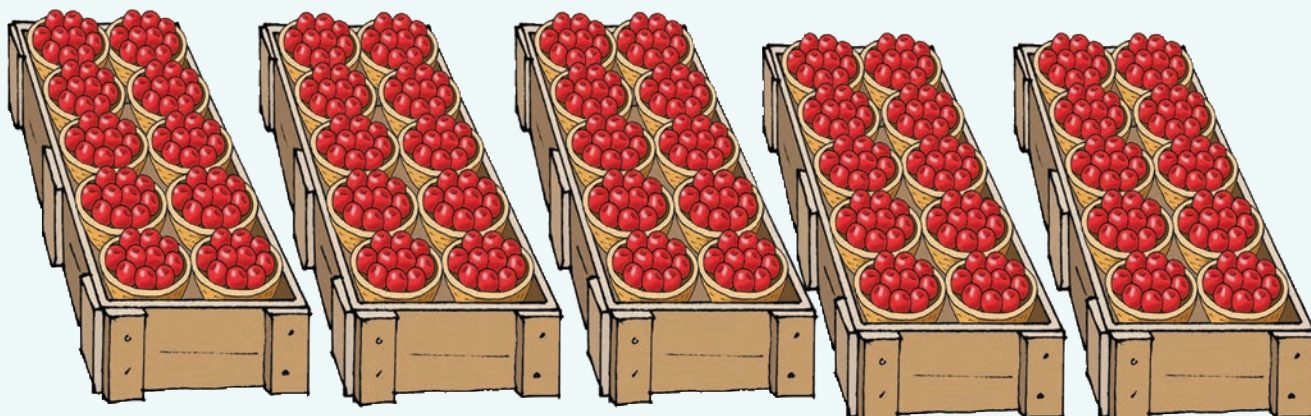


There are 10 apples in 1 basket.

There are _____ baskets in one crate.

There are _____ apples in one crate.

How many apples are there altogether? _____



Calculating, showing and writing

300

40

5

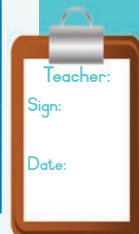
First use number cards to show each total. Then write in the number.

3 crates  + 4 baskets  + 5 apples  = 345 apples

4 crates  + 5 baskets  + 7 apples  = _____ apples

5 crates  + 2 baskets  + 3 apples  = _____ apples

4 crates  + 7 baskets  + 2 apples  = _____ apples



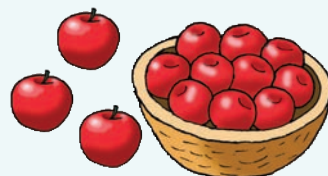
Multiplication and division (10)




Counting the apples.

Fill in the table.

How many baskets hold the apples?



Apples 	10	20	30	40	50
Baskets 	1	2			

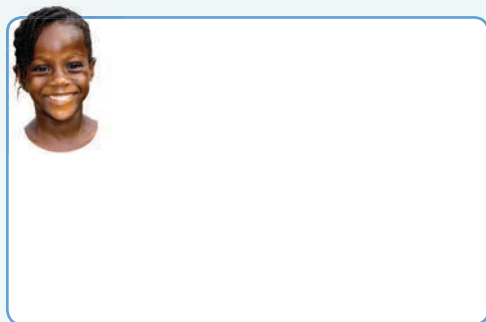
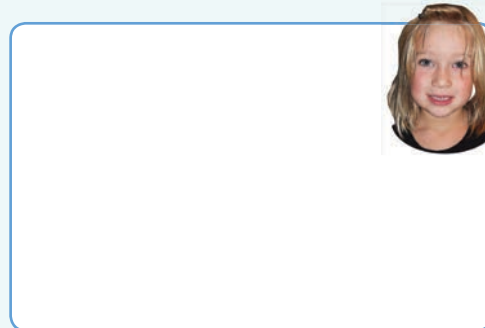
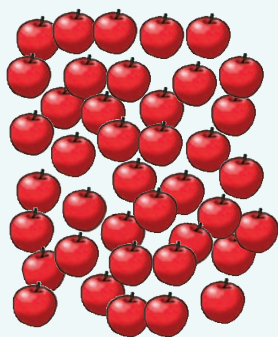
÷ sum					$50 \div 10 = 5$
× sum					$5 \times 10 = 50$



Divide the apples between the children. Make a drawing.

Write a division and multiplication sum to check your answer.

a.



Check your answers

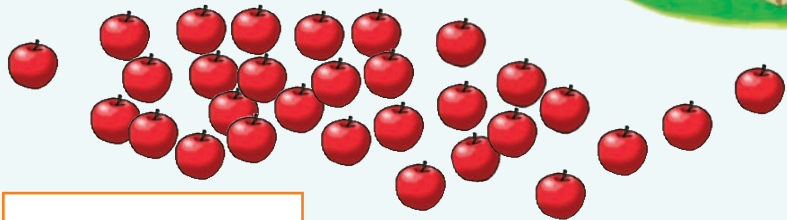
$$\square \div \square = \square$$

$$\square \times \square = \square$$





b.

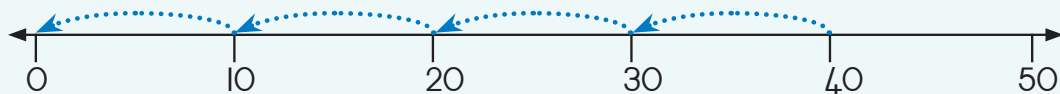


Write a \div sum

Write a \times sum to
check your answers



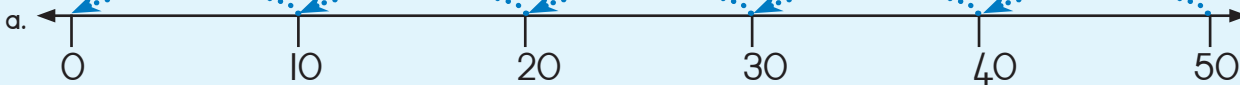
Use the numbers to make your own number sentences.



Example

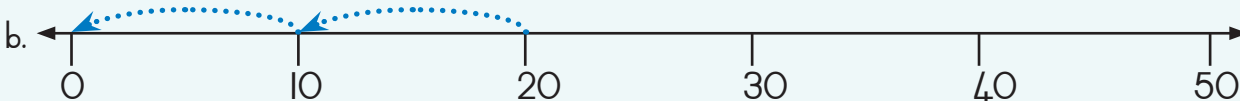
$$\div \quad 40 \div 10 = 4$$

$$\times \quad 4 \times 10 = 40$$



$$\div \quad \boxed{}$$

$$\times \quad \boxed{}$$



$$\div \quad \boxed{}$$

$$\times \quad \boxed{}$$



$$\div \quad \boxed{}$$

$$\times \quad \boxed{}$$



Write a number 10 smaller and 10 bigger than the given number.

_____, 460, _____

_____, 390, _____

_____, 500, _____

Teacher: _____
Sign: _____
Date: _____

Date: _____



Count in 2s



Counting forwards and backwards in 2s

a. 232; 234; _____; _____; _____; 242; _____; _____; 248

b. 500; _____; 496; _____; _____; 490; _____; _____; _____

c. 460; _____; _____; 400; _____; 360; _____; _____; _____

d. 341; _____; 361; _____; _____; 391; _____; 411; _____; _____



Pairs of gloves



a. How many **pairs of gloves** in one row? _____

b. How many **single gloves** in one row? _____

c. How many rows? _____

d. How many gloves altogether? _____

e. Show how you work it out.











f. Write your answer as a number sentence.
 _____ \times _____ = _____



How many gloves?

Write in the tables.

a.

Pair of gloves										
	1	10	5	50	4	40	3	30	100	
Number of gloves	2									

b.

Single gloves	20	21	70	73
Pairs that can be made				
Single gloves left over				



Count in twos

a. Which number comes in between?

264, _____, 268	391, _____, 395	414, _____, 410
-----------------	-----------------	-----------------

b. Write the next two numbers.

373, 375, <u>377</u> , <u>379</u>	480, 482, _____, _____	262, 264, _____, _____
-----------------------------------	------------------------	------------------------

c. Write the next two numbers.

346, 348, _____, _____	415, 417, _____, _____	297, 299, _____, _____
------------------------	------------------------	------------------------





Pave with tiles

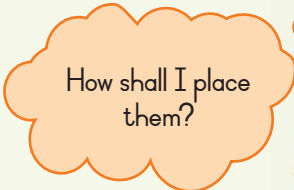


Planning a garden

Mrs Mabena has some pretty tiles.

She uses them to pave an area in her garden.

There are 6 square tiles of the same size.



I can make 1 row with 6 tiles.	I can make 2 rows with 3 tiles in a row.	I can make 3 rows with 2 tiles in each row.
$6 \times 1 = 6$	$3 \times 2 = 6$	$2 \times 3 = 6$

Now it's your turn!

Shade blocks to show how you can arrange 8 and 9 square tiles.

8 squares

9 squares

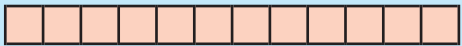
Write number sentences for each drawing.



Arrange 12 tiles

Thabo has 12 square tiles to pave next to the house. Help him find all the ways he can do this.

Write a number sentence for each way.

Example: 	$1 \times 12 = 12$ $12 \times 1 = 12$



Arrange 24 tiles

- Use the grid in Cut-out sheet 2.
- Shade 24 blocks in different ways.
- Write number sentences to match each drawing.



I can multiply!

$12 = 2 \times \square$	$3 \times \square = 12$	$9 = \square \times 3$
$6 = 3 \times \square$	$\square \times 3 = 12$	$24 = 3 \times \square$

Teacher:

Sign:

Date:

Using fives



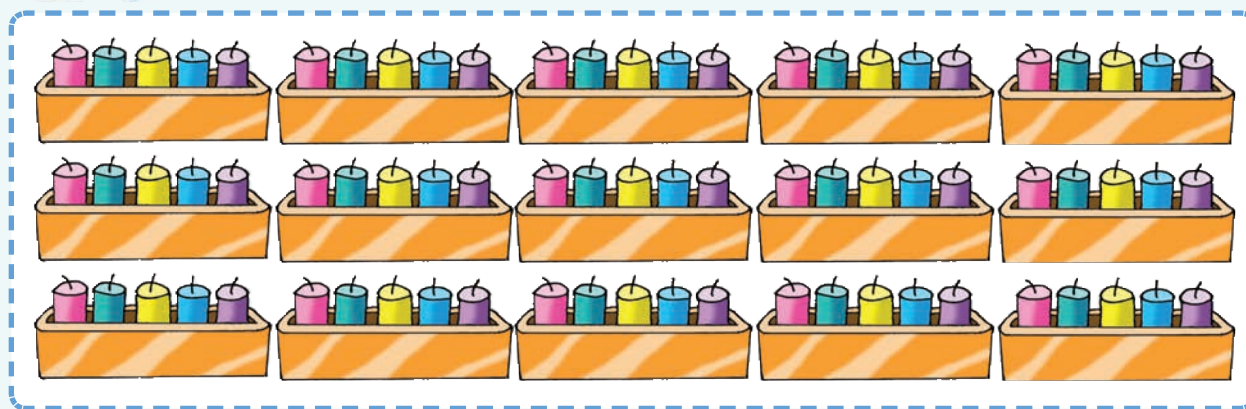
Knowing your 5s

Fill in the answers.

	1	2	3	4	5	6	7	8	9	10
$\times 5$	5									



Counting the candles



a. How many candles in each box? _____

b. How many boxes in each row? _____

c. How many candles in each row? _____

d. How many candles altogether? _____



Showing the answer

Tick (✓) the number sentences that show the total number of candles.

a. $5 \times 3 \times 3 = \square$ b. $15 \times 3 = \square$ c. $3 \times 5 \times 5 = \square$ d. $15 \times 5 = \square$



Counting forwards and backwards in 5s

- a. 85; _____; _____; 70; _____; _____; 55; _____; _____
- b. 240; _____; _____; 255; _____; _____; _____; _____; 280
- c. 405; _____; 395; _____; _____; 380; _____; _____; 365; _____



Collecting R5 coins



The children collect R5 coins. How many R5 coins do they need to collect to have R____?

We have done the first two for you.

R5 ÷ R5 = 1 coin	R10 ÷ R5 = 2 coins	R15? _____	R20? _____	R25? _____
R30? _____	R35? _____	R40? _____	R45? _____	R50? _____

$$2 \times R5 = \text{R } \boxed{}$$

$$4 \times R5 = \text{R } \boxed{}$$

$$3 \times R5 = \text{R } \boxed{}$$

$$6 \times R5 = \text{R } \boxed{}$$

Do you see the pattern?



Multiplying by 5s

Example: $1 \times 5 = 5$; $11 \times 5 = 55$; $21 \times 5 = 105$

Think smart! Build on facts you know!

1	2	3	4	5	6	7	8	9	10
5	10								
11	12	13	14	15	16	17	18	19	20
55									



Teacher: _____

Sign: _____

Date: _____



Working with time



Drawing the times



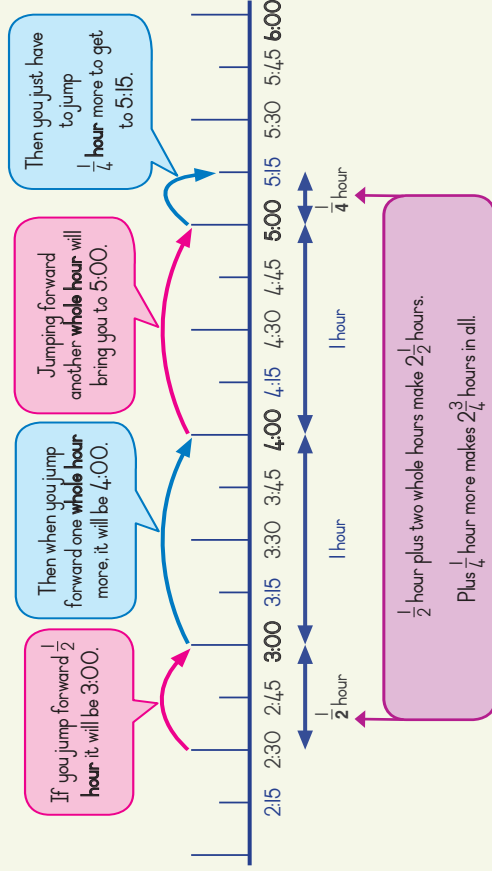
Half past 5	Quarter to eleven	Quarter past 12	12:45	6:15
			4:30	



Time problem

Nomsa's mom leaves home at 2:30.
She comes back at 5:15.
How long is she out for?

We can use a time line to work it out.
Put your finger on 2:30.
the time it is now.



Time problems

Check. Compare. Correct.

Solve each problem. Use the time lines to help you.

a. Queenie visits her Dad at the clinic at 15:45.

She leaves at 17:15.

How long does she visit for?



b. Musa goes to the park at 10:45.

He comes home at 12:30.

How long is he away for?



c. Tumi starts to study at 13:15.

She finishes at 14:45.

How long does Tumi study for?

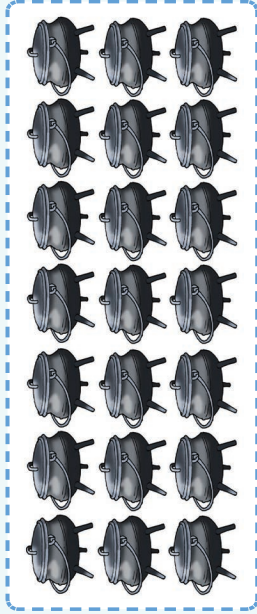


Count in 3s and 4s



Pots with 3 legs

Add and write the answers.



- How many pots in a row? _____
- How many legs in a row? _____
- How many rows of pots? _____
- How many legs altogether? Show how you work it out.

Tick (✓) which number sentences below show the total.

$21 \times 7 = \square$ $3 \times 7 \times 3 = \square$ $3 \times 4 \times 2 = \square$ $21 \times 3 = \square$



How many legs?

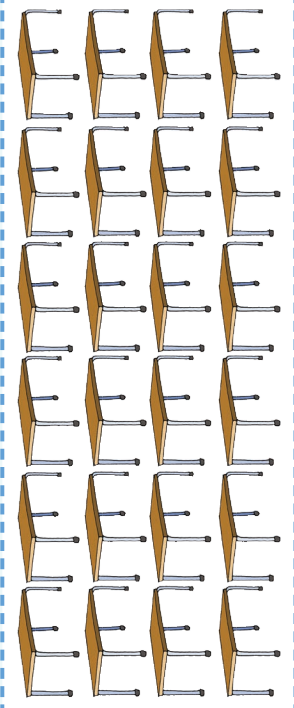
Think fast.
Think smart.

1 pot	3 legs	10 pots	legs	5 pots	legs
2 pots	legs	15 pots	legs	12 pots	legs
5 pots	legs	13 pots	legs	14 pots	legs

Date:



Table legs



- How many tables in a row? _____
- How many legs in a row? _____
- How many rows of tables? _____
- How many legs altogether? Show how you work it out.



At the factory



A carpenter makes tables. He first makes the legs.

He has made 48 so far. How many tables can he make?

How many more legs does he need for one more table?



Complete the grid by filling in the answers

	2	3	4	5	8	10	11	12
$\times 3$	6							
$\times 4$	8							

Date: _____

Count in 50s

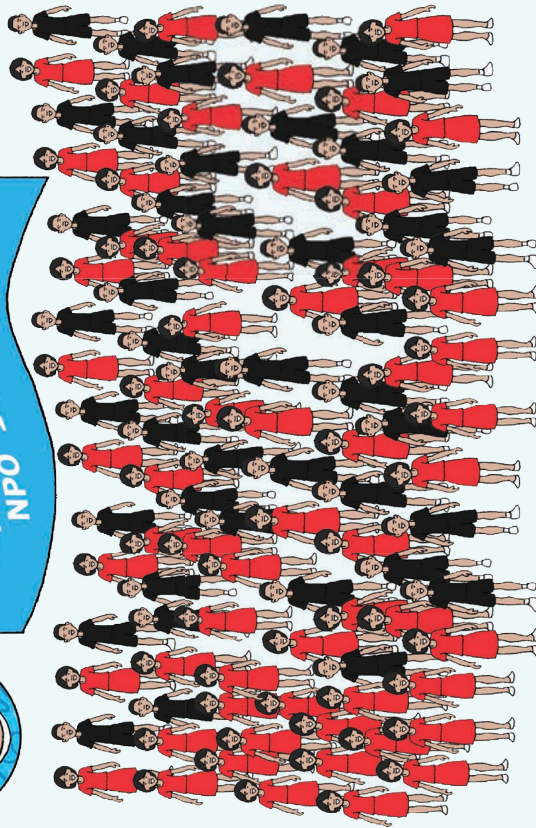


One child, one blanket!

How many children? Estimate, then count.



Blanket of Hope
Keep our 123-098 NPO



All the children in the picture get a blanket. How many children are there? _____		
Estimate	Count	Compare
How many are 😊 boys? _____ How many are 😊 girls? _____		



What do they pay?

Gwazi



buys 2

R _____

She pays



Mrs Chaane



buys 5

R _____

She pays



Thembi Stores



buy 20

R _____

They pay



5		for R50 = R250	10		for R50 = R500
4		for R50 = R _____	15		for R50 = R _____
3		for R50 = R _____	6		for R50 = R _____
7		for R50 = R _____	12		for R50 = R _____
8		for R50 = R _____	9		for R50 = R _____



How long will it take? Use a calendar.

The grade 3 class collects money to buy 4 blankets.

They collect R5 a day for 5 days a week.

How many weeks do they need to collect money for the blankets?



Fractions: halves and quarters



Divide the balls equally between the boxes.

<ul style="list-style-type: none"> How many balls are in each box? <input type="text"/> How many balls in the purple box? <input type="text"/> What fraction is in the purple box? <input type="text"/> 	<ul style="list-style-type: none"> How many balls are in each box? <input type="text"/> How many balls in the purple box? <input type="text"/> What fraction is in the purple box? <input type="text"/>



Look at the pictures and answer the questions.

<ul style="list-style-type: none"> How many circles do you count? <input type="text"/> What is $\frac{1}{2}$ of the circles? <input type="text"/> What is $\frac{2}{4}$ of the circles? <input type="text"/> What is $\frac{3}{4}$ of the circles? <input type="text"/> What is $\frac{4}{4}$ of the circles? <input type="text"/> 	<ul style="list-style-type: none"> How many circles do you count? <input type="text"/> What is $\frac{1}{4}$ of the circles? <input type="text"/> What is $\frac{2}{4}$ of the circles? <input type="text"/> What is $\frac{3}{4}$ of the circles? <input type="text"/> What is $\frac{4}{4}$ of the circles? <input type="text"/>

Date:



Colour in $\frac{1}{2}$ of each shape.



Colour in $\frac{1}{4}$ of each shape.



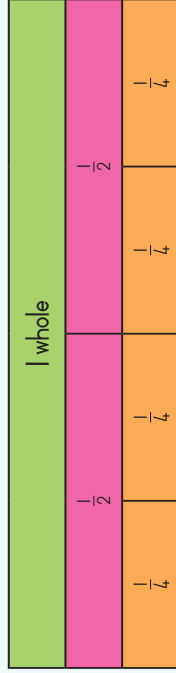
Colour in $\frac{2}{4}$ of each shape.



Colour in $\frac{3}{4}$ of each shape.



Look at the fraction strips.

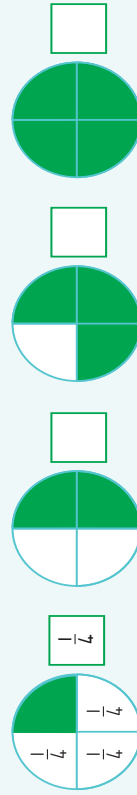


a. How many halves ($\frac{1}{2}$) make one whole?

How many quarters ($\frac{1}{4}$) make one whole?

How many quarters ($\frac{1}{4}$) make one half?

b. Look at the diagrams and write a fraction for the shaded part.



c. Which fraction is bigger $\frac{1}{2}$ or $\frac{1}{4}$.



Teacher: _____
Sign: _____
Date: _____

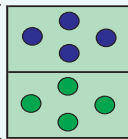
Fractions: halves, thirds and sixths

Divide the cans (cylinders) equally between the boxes.

Total cans: <input type="text" value="12"/> • How many cans in the purple box? <input type="text" value="6"/> • What fraction is in the purple box? <input type="text" value="1/2"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>



Look at the pictures and answer the questions.



How many circles do you count?

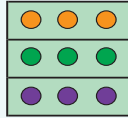
What is $\frac{1}{2}$ of the circles?

What is $\frac{2}{3}$ of the circles?

What is $\frac{3}{3}$ of the circles?

What is $\frac{4}{6}$ of the circles?

What is $\frac{5}{6}$ of the circles?



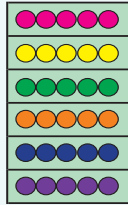
What is $\frac{1}{3}$ of the circles?

What is $\frac{2}{6}$ of the circles?

What is $\frac{3}{6}$ of the circles?

What is $\frac{4}{6}$ of the circles?

What is $\frac{5}{6}$ of the circles?



What is $\frac{1}{6}$ of the circles?

What is $\frac{2}{6}$ of the circles?

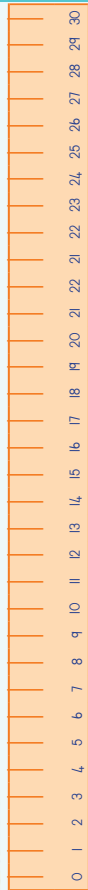
What is $\frac{3}{6}$ of the circles?

What is $\frac{4}{6}$ of the circles?

What is $\frac{5}{6}$ of the circles?

What is $\frac{6}{6}$ of the circles?

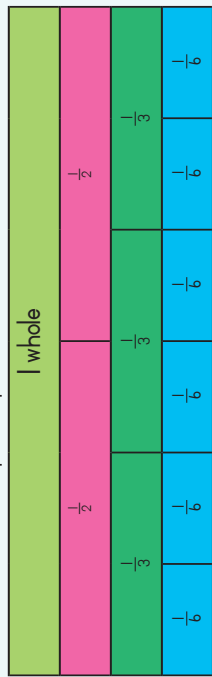
Date:



- Show one half of the length of the ruler. This equals to ____ cm
- Show one third of the length of the ruler. This equals to ____ cm
- Show one sixth of the length of the ruler. This equals to ____ cm



Look at the fraction strips. Complete the sentences.



- There are ____ halves in a whole.
- There are ____ thirds in a whole.
- There are ____ sixths in a whole.
- There are ____ sixths in a half.
- There are ____ sixths in a third.

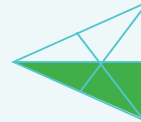


Write a fraction for the shaded part.









Circle the bigger fraction.

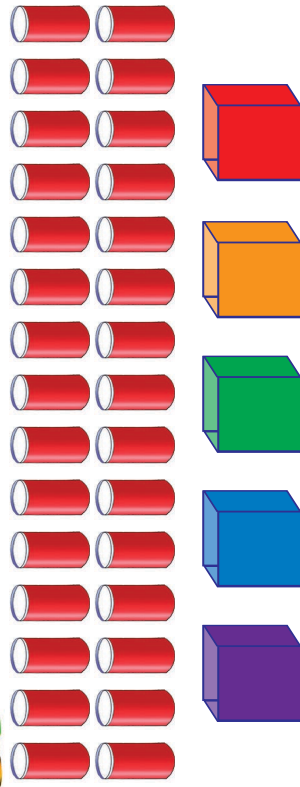
a. $\frac{1}{2}$ $\frac{1}{3}$

b. $\frac{1}{2}$ $\frac{1}{6}$

c. $\frac{1}{2}$ $\frac{2}{6}$

Fractions: fifths

Divide the cans into the 5 boxes.



- In one fifth of the boxes are 6 cans.
- In two fifths of the boxes are cans.
- In three fifths of the boxes are cans.
- In four fifths of the boxes are cans.
- In five fifths of the boxes are cans.



Look at the picture and answer the questions.

How many chocolates are in the box?

- one fifth ($\frac{1}{5}$) of the chocolates equal to
- two fifths ($\frac{2}{5}$) of the chocolates equal to
- three fifths ($\frac{3}{5}$) of the chocolates equal to
- four fifths ($\frac{4}{5}$) of the chocolates equal to
- five fifths ($\frac{5}{5}$) of the chocolates equal to

• On day 1 I ate $\frac{1}{5}$ of the chocolates. How many chocolates are left?

• On day two I ate another $\frac{1}{5}$. How many chocolates are left?

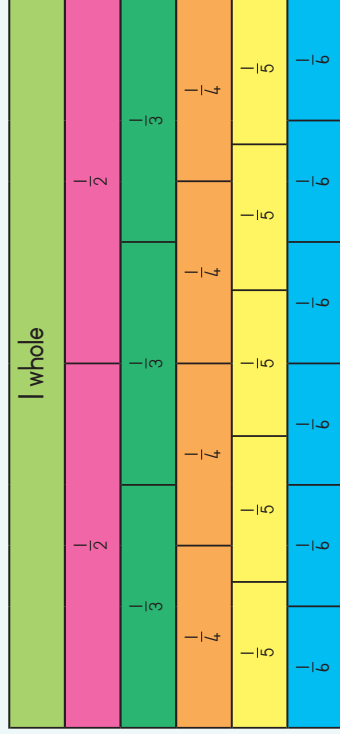


Date:

Colour $\frac{1}{5}$ of the measurement of the ruler.



Look at the fraction strips and answer the questions.

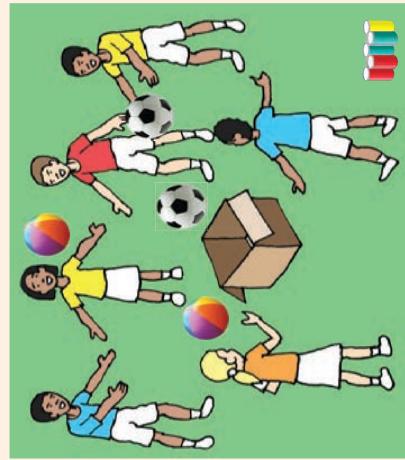


Circle bigger or smaller

- $\frac{1}{2}$ is bigger /smaller than $\frac{1}{4}$.
- $\frac{1}{3}$ is bigger/smaller than $\frac{1}{2}$.
- $\frac{1}{5}$ is bigger/smaller than $\frac{1}{6}$.
- $\frac{1}{6}$ is bigger/smaller than $\frac{1}{3}$.
- $\frac{3}{6}$ is bigger/smaller than $\frac{2}{6}$.

Date: _____

3D objects



Count the boxes (prisms).

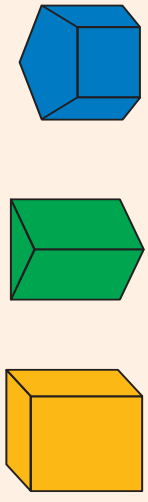
Count the balls (spheres).

Count the cylinders.



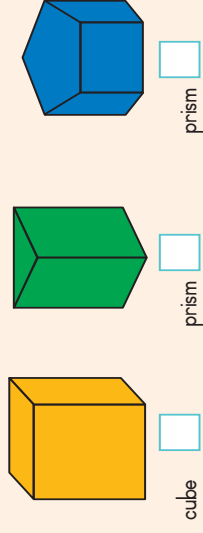
These are all boxes.

Use Cut-out sheets 3 and 4 to make them.



Each flat surface is called a face. Stick or draw one smiley on each face of the boxes.

How many faces did you stick on:



Are the faces of the prisms flat or curved?

Now make the cylinder from Cut-out sheet 4.

Are the faces of the cylinder flat or curved?



Use your objects to build the following.

Describe the position of the cylinder using the words.

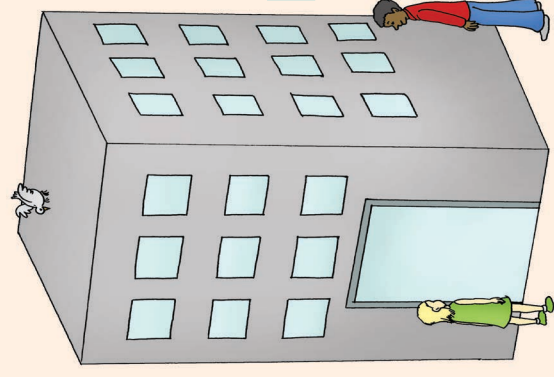
On the side

In front

On top



Use the words below to complete the sentences.



The girl looks at the _____ of the building.

The man looks at the _____ of the building.

The bird looks at the _____ of the building.

side	front	top
------	-------	-----

Double and half

Do you remember? 2 is half of 4

20 is half of 40

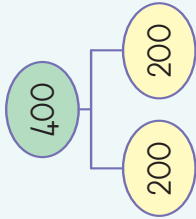
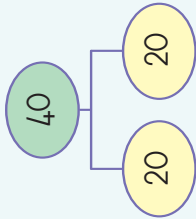
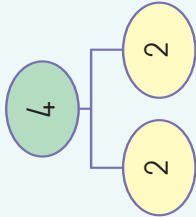
200 is half of 400

4 is double 2

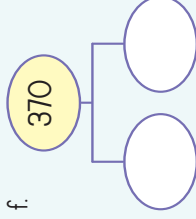
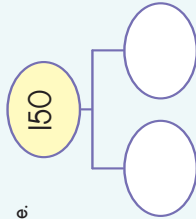
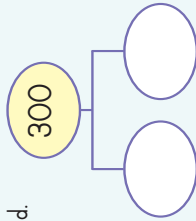
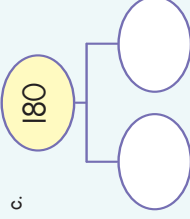
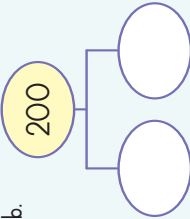
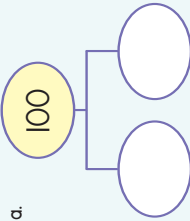
40 is double 20

400 is double 200

Remember! We can show this in a drawing ...

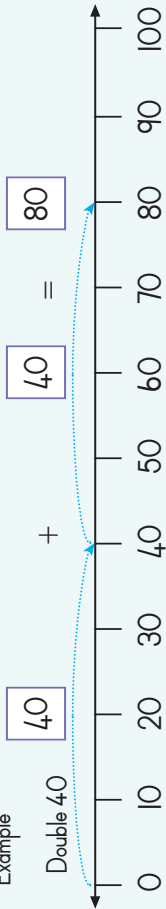


Finding halves

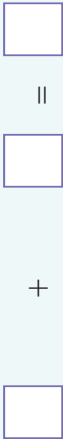


Double the number using a number line. The first example is given to you.

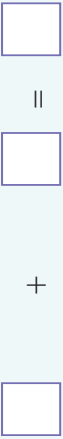
Example



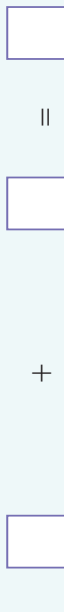
a. Double 60



b. Double 150



c. Double 200



Complete the following

a. Double 100	200
b. Double 150	
c. Double 120	
d. Double 200	
e. Double 170	



Complete the following

a. Half 220	110
b. Half 180	
c. Half 260	
d. Half 60	
e. Half 320	



Teacher: _____
Sign: _____
Date: _____

More double and halving

Finding the doubles or halves

a.

b.

c.

d.

e.

f.

Saving for a bicycle

Aakar saves R25 a week to buy this bicycle.
For how many weeks must he save?

Answer: weeks

On sale

All the items are on sale for half the price.
Write the sale price next to each item.

a. Blankets R190
Sale price

c. Cushions R54
Sale price

b. Sheets R154
Sale price

d. Chairs R220
Sale price



How many rands?

	R135	Musa wants the shirt. He only has half the amount. How much does he still need? R <input style="width: 100px;" type="text"/>
	R78.50	Aakar's shoes cost twice as much as these. How much do Aakar's shoes cost? R <input style="width: 100px;" type="text"/>
	R97	Phindi's dress is double the price of this one. How much does Phindi's dress cost? R <input style="width: 100px;" type="text"/>



What goes in? What comes out?

Follow the example. Fill in the missing numbers.

a.

50

90

75

88

double

110

62

b.

124

110

72

98

- 9

53

40

Sale R450

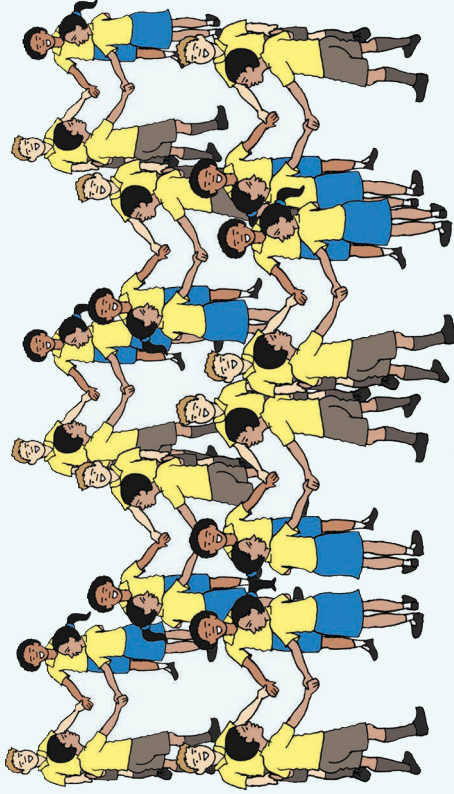
Half price: was R900

Group and combine



Grouping the children

Mrs Ndaba wants to divide the class into equal-sized groups for outdoor games. First she puts them into groups of 4.



a. Count the children?

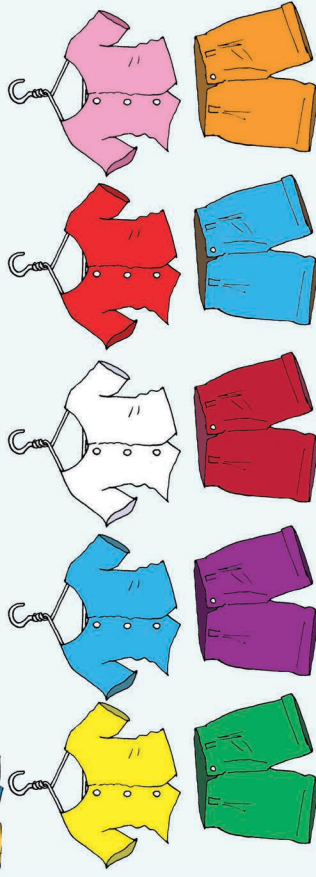
b. How many teams does she make?

c. Show all the other ways they can be grouped into equal sized groups.

Check. Compare.
Correct.



How many outfits?



Phindi has 5 coloured shirts and 5 coloured shorts.

How many different outfits can she make using different combinations of the colours?

For example: Blue shirt/blue shorts. Blue shirt/orange shorts.

Write the first letter of each colour. Show all the other possible outfits.

Predict: What if Phindi has 6 different colours of shirts and shorts?

How many outfits can she make?

Check. Compare.
Correct.

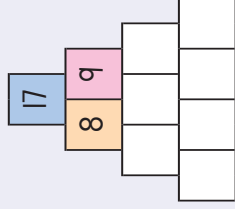
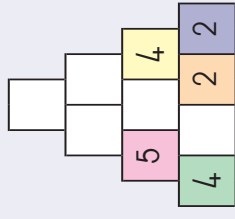
Maths fun



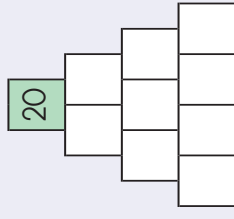
Look for a rule

Use the rule to find the missing numbers.

Now do these:



Build to 20 in 3 different ways.



Finding the numbers



a. Rule: The numbers in each row must add up to 16.

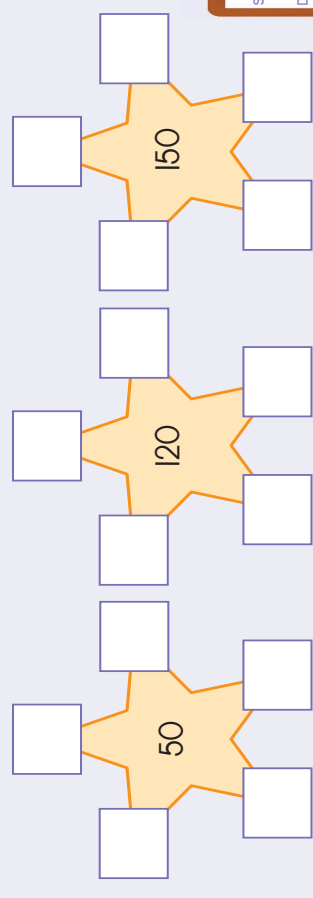
2		5	3	6
				2
			2	

b. Rule: The 3 numbers across the rows and down the columns, add up to the same total.

2	7	6
9		1
	3	8

23	28	21
12		26
		10

c. Rule: Write in any 5 numbers that add up to the middle number inside the star.



Challenge



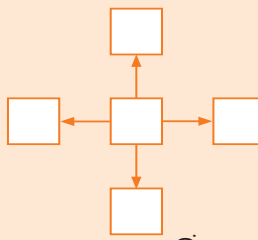
Just think!



Use the numbers 1, 2, 3, 4 and 5.

The 3 numbers in each row must add up to 10.

Rule: Use each number only once.



1

1

0

1

0

0

2

2

0

2

0

0

3

3

0

3

0

0

4

4

0

4

0

0

5

5

0

5

0

0

6

6

0

6

0

0

7

7

0

7

0

0

8

8

0

8

0

0

9

9

0

9

0

0

1	0	0	1	0	1
2	0	0	2	0	2
3	0	0	3	0	3
4	0	0	4	0	4
5	0	0	5	0	5
6	0	0	6	0	6
7	0	0	7	0	7
8	0	0	8	0	8
9	0	0	9	0	9

