

## Contents



This book belongs to:

## Count, sort and show!



Estimate how many stars.
Now count them. $\qquad$

## Find the winner!

Who made the best estimate?
Fill in your names and answers in this table.

| Name |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Estimate |  |  |  |  |
| Number counted |  |  |  |  |
| Difference between <br> your estimate and <br> your count |  |  |  |  |

345
6
8

## Ways to count. Help us to write it down.



2 ,


5, $\qquad$


## A lh 20 <br> Write number sentences

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


Write them in two ways.

$$
\sum^{\text {Big }}+\mathcal{B}=
$$ or

like this

$$
\xi+\sum \sqrt{3}=
$$

$\qquad$

and as a number sentence.
$\qquad$ $+$ $\qquad$ $=$ or $\qquad$ $+$ $\qquad$ $=$ $\qquad$


Clever counting
Counting the pumpkins
Find an easy way to count them.


Packing the pumpkins
Ten pumpkins go in one bag.


How many bags can you fill with the pumpkins? $\qquad$
How many pumpkins are left over? $\qquad$
How many more pumpkins are needed to fill one more bag? $\qquad$

## 30 <br> From + to $\times$ (addition to multiplication)

Complete the number sentences.
Example:
$10+10+10+10=40 \Longrightarrow 4$ groups of $10=40 \Longrightarrow 4 \times 10=40$

a. $10+10+10=$ $\qquad$
$\ldots$ groups of $\mathrm{IO}=$ $\qquad$ $\Longrightarrow$ $\qquad$ $\times$ $\qquad$ $=$ $\qquad$

b. $10+10+10+10+10+10+10+10=$ $\qquad$

$$
\text { groups of } \mathrm{IO}=\_\Longrightarrow \quad{ }^{\square} \quad \Longrightarrow
$$

$\qquad$


How many hands? $\qquad$ How many fingers?
Write your answer in 2 ways.
___groups of $\mathrm{IO}=$ and

$$
\times 10=
$$

## Numbers on a hundred board



Talking numbers
Count and say all the numbers from I to IOO . Point as you go.

| 1 | 2 | 3 | 4 | 5 | 6 |  | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| II |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 27 |  |  |  |
|  |  |  | 34 |  |  |  |  |  | 40 |
| 41 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 55 |  |  |  |  |  |
|  |  | 63 |  |  |  |  |  |  |  |
| 71 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 86 |  |  |  |  |
|  |  |  | 94 |  |  |  |  |  | 100 |


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

Write the numbers in words.

| 90 | ninety | 41 |  |
| :---: | :---: | :---: | :--- |
| 77 |  | 56 |  |
| 14 |  | 65 |  |

6

## 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 IO 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 | 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 5 s from O to IOO .

| 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 $1 \mathrm{O}_{\mathrm{s}}$ from IO to 100 .

Write the IOs from IO to IOO.

Count in 5 s from 5 to 100 .

Write the 5 s from 5 to 80 .

Count in 2s from 2 tolOO.

Write the 2 s from 2 toloo.

## 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 | 55 | 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 |


$\begin{array}{ll}\text { Tick }(\mathcal{V}) \text { all the } 10 \mathrm{~s} & \text { Cross }(\boldsymbol{X}) \text { the } 5 \mathrm{~s} \quad \text { Circle }(\mathbf{O}) \text { the 2s }\end{array}$
Write the numbers that are in both the 2 s and the 5 s pattern.

6
7
8
q

## Counting patterns

Fill in the missing numbers.


## Place value

## Showing your numbers

Cut out the number cards from Cut-out sheet I.
Use the cards to build these numbers.

43


| 1 | 0 |
| :--- | :--- |
| 1 | 0 |
| 1 | 0 |
| 1 | 0 |

Now do it yourself for these numbers using Cut-out I.
54

35

69

12
(6)

7
8

Writing these numbers
We have done the first one for you.

| 19 | $10+9$ | Iten +9 units | nineteen |
| :---: | :---: | :---: | :---: |


| 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.


## Addition and subtraction

Lebo's stall
In the morning Lebo has 19 packets of apples.
By lunchtime she has 3 packets left.
a. How many packets does Lebo sell?
b. Write your answer as a number sentence.
$\qquad$ - $\qquad$ $=$ $\qquad$


Write five other numbers sentences to show the same answer. $15-9=6$


Number drill
Write the answers.


| $10+5=\square$ | $11+6=\square$ | $14-9=\square$ | $14-8=\square$ |
| :--- | :--- | :--- | :--- |
| $11+5=\square$ | $17+2=\square$ | $19-7=\square$ | $14-5=\square$ |
| $12+6=\square$ | $3+13=\square$ | $16-5=\square$ | $16-13=\square$ |
| $17+2=\square$ | $4+15=\square$ | $15-10=\square$ | $19-7=\square$ |

6
7
8

Can you find all the number families of $I 4$ ?

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



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

## $\infty$

## Doubles and halves

Finding doubles or halves


| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Double the number using a number line.
The first example is given to you.
a. Double 4
4

$=8$





| a. Double I | 2 |
| :--- | :---: |
| b. Double 6 |  |
| c. Double IO |  |
| d. Double 30 |  |
| e. Double 50 |  |


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

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


6

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?

$\square$


Draw more shapes to make each quarter equal.



Estimate the total amount. R $\qquad$ 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


R1 Lo Challenge
A visit to the zoo
Some adults and children go to the zoo.
They buy tickets for ROO.
How many are children? $\qquad$
How many are adults? $\qquad$
Is there another answer?
Adults $\qquad$ Children $\qquad$


## Patterns

Use this 200 number board to answer the questions.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $I I$ | 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.

| $105,110,115, \ldots$ | $87,90,93$, |
| :--- | :--- |
| $36,40,44, \ldots$ | $138,186,188$, |
| $70,65,60, \ldots$ | $14,12,10$, |
| $180,176,172$, |  |

3 45
6
8
q

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 threes.

|  |  | 3 |  |  | 6 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Counting in twos.

|  | 2 |  | 4 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Counting in tens.

|  |  |  |  |  |  |  |  |  | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Extend the pattern.


Balls, boxes and cylinders



The cylinder
slides rolls


The ball slides rolls

## Cib

Colour in the correct answer.

straight edge



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



## Draw, name and compare 2D shapes

Draw 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.


## Time passes

Reading the time
What times do these watches show?

o'clock $\qquad$ o'clock $\qquad$ o'clock o'clock


Jump around the clock
Help Minnie Mouse count the minutes in 5 s.
Start at the I2. Go all the way around.
How many minutes do you count?
How many minutes in I hour?


## Writing the time

Draw the hands to show the times.

(6) 7

8

Zander walks to school.



He leaves home.
How long does Zander take?


The bread goes into the oven.


The bread


He gets to school.
$\qquad$ $\square$

## Measuring length

## Term



How many pencils long is the rectangle below? $\square$

How many pencils wide is the rectangle below? $\square$
length


How did you use the pencils to count?
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? $\square$

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


Answer $\qquad$


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


Tick which containers you think hold I litre of liquid.


.

## 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




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
$\square$
$\square$

Balance the scales.
We did the first one for you.
a. 2 parcels $\qquad$ kg
b. 3 parcels $\qquad$ kg
c. Can I measure 4 parcels at the same time on this kitchen scale? $\qquad$
Why or why not? $\qquad$
$\qquad$

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

$\square$
$\square$


## Data handling

## Shoes in the class

Read the story.
Thabo:
Wow, Miss! Jack is a giant! He wears size b 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 answer these questions.
a. Most learners wear shoe size $\qquad$ .
b. The fewest number wear size $\qquad$ .
c. $\qquad$ 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.



## 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 . $\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ ,
- Write down five numbers bigger than 71 . $\qquad$
$\qquad$
$\qquad$ , $\qquad$ ,
- 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 |
| :--- | :--- | :--- | :--- | :--- |$\quad$| 36 | 63 | 33 |
| :--- | :--- | :--- |

Circle the smallest number.

| 99 | 19 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- |$\quad$| 14 | 41 | 40 |
| :--- | :--- | :--- |

If < means smaller than, and $>$ means bigger than, complete:
$32 \square 64$
$23 \gg$
$57 \square 98 \quad 89$

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


## Place value to 99

## Showing numbers using objects

We can show numbers with place value blocks.
A small block stands for al. It is a unit.
A rod of IO small blocks stands for a IO . It is a ten.

| Tens | Units |
| :---: | :---: |
| $\theta$ | $\theta$ |
| $\theta$ |  |
| $\theta$ | $\theta$ |
| $\theta$ |  |
| $\theta$ |  |


| You can show a number using |  |
| :--- | :--- |
| tens and units. |  |
| Here is how to show 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.

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

| Number | How many <br> tens? | How many <br> units? | Write the number in words |
| :---: | :---: | :---: | :---: |
| 26 | 2 | 6 | twenty-six |
| 46 |  |  |  |
| 99 |  |  |  |



What is the number?

|  | $305$ $35$ | Tens <br> 3 <br> thir | Units <br> 5 <br> five |
| :---: | :---: | :---: | :---: |
|  |  | Tens | Units |
|  |  | Tens | Units |

$\stackrel{-}{\circ}$

## Putting tens together when

## Reading

## we add to 99



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.



Write the number sentence shown by the picture.
$11 \%$

| Tens | Units |
| :---: | :---: |
|  |  |



$10+5+6$


$L_{+}^{+}=$ $\qquad$

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


## 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 IO. This brings me to 56. Then I jump another 10 to get to 66 . And lastly, ljump 4 more to land at 70.
$=46+10+10+4$
$=56+10+4$
$=66+4$
$=70$

a. $32+25=$
$\square$
b. $52+26=$ $\square$

c. $46+25=\square$


○
a. $36+41=\square$


## Add on a number line (continued)

b. $57+19=\square$


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. $63+24=\square$
$\square$
b. $65+29=\square$
$\qquad$

## How many loaves?

The baker delivers 54 brown

a. How many loaves altogether?
$\square$
b. Find the total on a number line. Show the numbers and the size of the jumps.
$\square$


Add the following without using a number line. Use any other method you like.
$38+24=$
$58+17=$
$83+29=$

## Subtract on a number line

## One learner! One ruler!

The class needs 53 rulers. We have only 35 .
How many more do we need? $53-35=$ $\square$

## Working with a partner

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


So, I will start at 53 and take away. I'll take away IO, IO, IO - 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 I 8 . 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. $68-24=$ $\square$

b. $74-38=\square$

c. $92-87=$ $\square$


10 plus 3 plus five is 18 . So we need 18 more rulers.
a. $38-14=\square$


## Subtract on a number line (continued)

b. $65-43=\square$

c. $72-39=\square$

d. $85-48=\square$


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. $84-32=$ $\square$
b. $96-53=$ $\square$

c. $78-19=\square$
$\qquad$

## d. $63-47=$ <br> $\square$

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.


## 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.

| Kind of food | Pemmed | ner |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Number |  |  |  |  |



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

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
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## Counting up to 200



Count the apples.


Fill in the numbers.
I Box has $\square$ apples
I Row has

boxes $\quad$| I Row has $\square$ |
| :--- |
| 4 |$\quad$ apows has $\square$ apples

How many apples can we pack in these boxes?

a. How many apples will there be in five boxes? $\square$

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


| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

5 Pairs of feet.


How many toes altogether?

$$
10+10+10+10+10=50 \quad \underline{5} \times 10=
$$

$\square$
or $10 \times \underline{5}=$ $\square$
Do these in the same way.
4 Pairs of feet. How many toes? $\square$

$$
\times \ldots \quad \text { or } \quad \square \quad=
$$

$\square$

9 Pairs of feet. How many toes? $\qquad$ $=$ $\square$

$$
\times
$$

$\square$ or $\qquad$ $\times$ $\qquad$ $=$ $\square$


$$
\begin{aligned}
& 3 \text { lots of } 10 \text { make } 30 \quad 3 \times 10=30 \text { or } 10 \times 3= \\
& 5 \text { lots of } \mathrm{IO} \text { make } \quad \times \quad= \\
& \text { or } \\
& \times \\
& 2 \text { lots of IO make } \\
& \times \\
& \text { or }
\end{aligned}
$$

## Practice with Ss



How many fish? Make an estimate


Now count the fish. Find the total. $\square$
 Counting in 5 s
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 |  |  |

2
3
4
5
6.
8

E Complete the number sentences and number lines.

a.

b.

c.


Catching fish
Sipho catches between 40 and 50 fish. He counts them in 2 s and has I left over.
He counts them in 5 s and has 2 left over. How many fish does Sipho catch?
$\qquad$

## 25a

## Count in 2s

Counting the socks

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 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



## Count in 2 s (continued)

## Building pairs

Write down the even and odd numbers from $1-60$.
a. Write down the even numbers from $\mathrm{I}-6 \mathrm{O}$.
$2,4,6$,
b. Write down the odd numbers from $\mathrm{I}-6 \mathrm{O}$.

## 3, 5, 7,



Draw a circle around the even numbers.

## From pairs to socks

Example:

$$
\begin{array}{lr}
2 \text { socks }=1 \text { pair } \int_{0} & 20 \text { socks }=10 \text { pairs } \\
2 \times 1=2 & 2 \times 10=20
\end{array}
$$

a. Write how many socks.

| Think in 2s | Number sentence |
| :--- | :---: |
| I pair $=2$ socks | $\boxed{1} \times \boxed{2}=\square 2$ |
| 2 pairs $=\ldots$ socks | $\boxed{2} \times \boxed{2}=\square$ |
| 4 pairs $=\ldots$ socks |  |
| 8 pairs $=\ldots$ |  |
| 9 pocks |  |

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

Example:

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



## 26

## 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 $I$ cent coin had the lowest value, then the 2 cent coin and then the 5 cent coin.


6 7
8
q


Count the cents
Count the I cents.
How many cents are there?
$\square$
How many more cents do you need to make RI,OO?
$\square$
Draw them in the block.

## How many cents?

| $\mathrm{RI}, \mathrm{OO}=\square \mathrm{R}=\square$ | $\mathrm{R}, \mathrm{OO}=\square$ |
| ---: | ---: | ---: |
| $\mathrm{R} 3, \mathrm{OO}=\square \mathrm{Cl}, 5 \mathrm{O}=\square$ |  |



## How much fruit can I buy?



How many bananas for R20,00?
$\square$


How many apples for Rq, OO?
$\square$

## Count in 3s



## Wheels in 3 s



I tricycle has $\qquad$ wheels.


| 5 tricycles have____ wheels. | $3+3+3+3+3=5 \times 3=$ |
| :--- | :---: | :---: |
| 2 tricycles have__ wheels. | $3+3=2 \times 3=\ldots$ |
| 4 tricycles have__ wheels. |  |
| 6 tricycles have___ wheels. |  |
| 9 tricycles have___ wheels. |  |
| 8 tricycles have__ wheels. |  |



## Number lines

Follow the example.
b.

c.
 $=\square=6 \times 3=\square$


$$
=\square=10 \times 3=\square
$$


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?

Cows have four legs.

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

## What else comes in fours?

Counting the legs

Share answers.
Explain what you did.

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

| I cow |  | 4 | legs | 2 cows | 8 | legs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 cows |  |  | legs | 4 cows |  | legs |
| 5 cows |  |  | legs | 6 cows |  | legs |
| 7 cows |  |  | legs | 8 cows |  | legs |
| 9 cows |  |  | legs | IO cows |  | legs |



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

| 3 cows have $\quad$ legs. | $4+4+4=3 \times 4=\ldots 12$ |
| :---: | :---: | :---: |
| 5 cows have _legs. |  |
| 4 cows have $\quad$ legs. |  |
| 7 cows have $\quad$ legs. |  |
| 8 cows have $\quad$ legs. |  |



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

$$
\begin{aligned}
& =\square=5 \times 4=\square \\
& \text { b. } \longleftarrow \left\lvert\, \begin{array}{lllll|l|l|l|l|l|l|} 
\\
& 0 & 4 & 8 & 1 & 16 & 16 & 20 & 24 & 1 & \mid \\
\hline
\end{array}\right. \\
& \square=\square=9 \times 4=\square
\end{aligned}
$$



## 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: $\qquad$

|  |  |  |  | 0 |  |  |  |  | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | 0 |  |  |  |  | 0 |
|  |  |  |  | 0 |  |  |  |  | 0 |
|  |  |  |  | 0 |  |  |  |  | 0 |
|  |  |  |  | 0 |  |  |  |  | 0 |
|  |  |  |  | 0 |  |  |  |  | 0 |
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|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

$\square$
c. Pattern:

|  |  | 0 |  |  | 0 |  |  | 0 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 0 |  |  | 0 |  |  | 0 |  |  |
| 0 |  |  | 0 |  |  | 0 |  |  | 0 |
|  |  | 0 |  |  | 0 |  |  | 0 |  |
|  | 0 |  |  | 0 |  |  | 0 |  |  |
| 0 |  |  | 0 |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |

$\square$
345
b. Pattern: $\qquad$

|  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
|  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
|  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
|  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
|  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
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d. Pattern: $\qquad$

|  |  |  | 0 |  |  |  | 0 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\circ$ |  |  |  | $\circ$ |  |  |  | 0 |
|  |  |  | 0 |  |  |  | 0 |  |  |
|  | 0 |  |  |  | 0 |  |  |  | 0 |
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(6)

7
8


## 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.


| The 3 s and 4 s pattern | The 3s and 5s pattern | The 4 s and 5 s pattern |
| :--- | :--- | :--- |
| e. g. 48 |  |  |
|  |  |  |



## At the sea

Thembi collects between 60 and 70 sea shells. When she counts them in 3 s , she has I left over.
The possible numbers are: 6 , $\qquad$ , $\qquad$ 70,
When she counts them in 5 s , she has 4 left over.
The possible numbers are: $\qquad$ , $\qquad$ .
How many shells does Thembi have? $\qquad$ .


Division

a. Share 30 sweets between 2 children.


We can write it as
$30 \div 2=15$
b. Share the sweets among 3 children.

c. Divide the sweets between 5 children.

$\div \quad=$

345
6 7
8

We can use number blocks to do division.


Now do these.


O

## Division (continued)

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

a.


| $21-\ldots=$ | $=$ |
| :--- | :--- |

b.


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.



Divide and then colour the shape to show the fraction:


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



4
5
6
7
8
q
10

Share the counters between the two children.

| $0$ | $\begin{aligned} & 000 \\ & 000 \end{aligned}$ |  | $\begin{aligned} & 000000 \\ & 000000 \end{aligned}$ |
| :---: | :---: | :---: | :---: |
|  | -) - | (-) © | $\bigcirc$-) - |
| $\infty \infty$ | 000000 |  | 000 000 <br> 000 000 |
| - We got 2 counters each. <br> - Half of 4 counters is 2 . | - We got $\qquad$ counters each. $\qquad$ of $\qquad$ counters is $\qquad$ | - We got $\qquad$ counters each. $\qquad$ of $\qquad$ counters is $\qquad$ | - We got $\qquad$ counters each. $\qquad$ of $\qquad$ counters is $\qquad$ |
| $4 \div 2=2$ | $\ldots$ | $\div \ldots$ | $\ldots$ |

Share the sweets between the children.


- one third of the sweets $=$
- two thirds of the sweets $=$ $\qquad$
- three thirds of the sweets $=$ $\square$


## It's about time

## Clockwise

We can write the same time in different ways.

| quarter past two | $5: 30$ <br> half past five | $9: 45$ <br> quarter to ten |
| :---: | :---: | :---: |
| $2: 15$ |  |  |

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.


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 $\qquad$ month(s),
$\qquad$ whole weeks and $\qquad$ days.
b. How many whole weeks in all?

How many days left over? $\qquad$ How many days in all?
c. Lebo's birthday is 7 days before Freedom Day.

Musa's birthday is two days ofter Youth Day.

Check. Compare. Correct.

Who is older? By how many days?

## Target 200



Counting the numbers

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


| 101 | 102 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| III |  |  |  |  |  |  |  |  |  |
| 121 |  |  |  |  |  |  |  |  |  |
| 131 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 149 |  |
|  |  |  | 154 |  |  |  |  |  |  |
|  |  |  |  | 165 |  |  |  |  |  |
|  |  | 173 |  |  |  |  |  |  | 180 |
| 181 |  |  |  |  | 186 |  |  |  |  |
|  |  |  |  |  |  |  | 198 |  | 200 |



Writing the numbers
a. Write the missing number in each blue square.
b. Write in the rest of the numbers.
c. Write the next 10 numbers after 200 . 200; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ;

Write the missing numbers


Complete


Write the numbers in order from smallest to biggest.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Counting on from 100

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


## 34

## 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? $\qquad$
How many boxes on each rack? $\qquad$
How many candles on each rack?
C. 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? | 8 | 4 boxes? |
| :---: | :---: | :---: |
| 5 boxes? | 0 | 3 boxes? |
| 6 boxes? | 0 | 7 boxes? |

c. How many boxes does she need for:

| $40 \hat{\theta} \quad$ boxes | $70 \hat{\theta} \quad$ ___ boxes |
| :---: | :---: |
| $50 \hat{i} \quad$ boxes | $30 \hat{i} \quad$ boxes |

## Putting tens together and taking them apart

Putting tens together when we add.

| Let's add $56+73=$ |  | + |  |
| :---: | :---: | :---: | :---: |
|  | 5 tens and 6 units |  | 7 tens and 3 units |

IOOs


Example: $82+34$ $\theta=\square$ and $\square=0$

##  <br> 

$100+20+6=126$
a. $65+52$
$\qquad$
b. $76+63$

|  |
| :--- |
|  |

c. $86+65$
$\qquad$

## 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. |
| :---: | :---: | :---: | :---: |
| $23+99=$ | $\qquad$ tens $\qquad$ units | $\begin{aligned} & I I \text { tens }+12 \text { units } \\ & =110+12 \end{aligned}$ | 122 |
| $38+25=$ | $\qquad$ tens $\qquad$ units |  |  |
| $77+31=$ | $\qquad$ tens $\qquad$ units |  |  |
| $68+45=$ | $\qquad$ tens $\qquad$ units |  |  |
| $83+47=$ | $\qquad$ tens $\qquad$ units |  |  |



Taking tens apart when we subtract
When we subtract, we sometimes need to show one ten as ten units, or one hundred as 1 O 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.)

| Fer |
| :---: | :---: | :---: | :---: |

Let us try.
a. 70-28

| $\square \square \square \square \square \square \square \square \square \square \square \square \square \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | $\square \square \square \square\|\mid \$ \$ \phi \phi \bigcirc$ | $\square \square \square \square \bigcirc$ |  |
| :---: | :---: | :---: | :---: |
| 7 tens | b 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 |  |



This is what the children tell him.

$$
=1 \text { time }
$$

| ¢) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |

a. Count the ticks $(\checkmark)$ 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 $\qquad$ a day.

There are $\qquad$ children in the group.

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

$$
=\text { I time }
$$

Do a survey in your class. Ask 15-20 learners.
a. How many times a day they brush their teeth? $\qquad$
b. 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:


She adds the units and puts down the 9 card.
She knows: $50+70=120$.
She takes the hundreds, the 20 and the 9 card


She writes it out like this:
$50+70+6+3$
$=50+70+9$
$=120+9$
$=100+20+9$
$=129$


20 to make a 3 - digit number.


Dumi knows how the blocks work.
She does $56+73$ like this:
$50+6+70+3$

$=129$

Aakar likes to round off. Here's how he does this one:
$56+73$
$=50+70+10-1$
$=130-1=129$
$\square$

Now try for yourself. Do each one in two ways.
a. $86+62$

Busis method

$$
80+60+6+2
$$

b. $72+63$
$\square$
c. $8 \mathrm{l}+57$
d. $\quad 69+71$
$\square$


Use Aakar's method to do this one.


음

## Add and combine (continued)

Now let's subtract.
a. $87-53$
Busis method
$80-50+7-3$
$=30+4$
$=34$

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?

$\square$

## Solve it!



Bottle tops
Use any method you like. Show your work.


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?
$\square$

## 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

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




$$
\begin{aligned}
& \text { Aakar's way } \\
& 69+95 \\
&= 70+95-1 \\
&= 70+90+5-1 \\
&= 160+4 \\
&= 164
\end{aligned}
$$

a. The boys collect R96 for a class trip. The girls collect R79.

How much do they collect altogether?
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?

## 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 IOO

Subtract the numbers in the pink box each time.
We have done the first one for you.


## Families of three

Find 3 numbers that add up to the target number.
Rule: Only one number can end in O .


50 more and 50 less
Write the answers in the 2 nd row.

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

$\begin{array}{llllllllll}11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 & 20\end{array}$

## Measuring in centimetres



How big is a centimetre?

| $\mid$ | $\mid$ |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |  |

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 O .
Some rulers do not show the O like the one on this page.
Find zero cm on the ruler. Write O on the ruler.
Where is IO cm on this ruler? Write IO there.


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


| a. Estimate |  |  |
| ---: | :--- | :--- | :--- |
| $\square$ | cm | b. Estimate | $\mathrm{cm} \quad$ c. Estimate $\square \mathrm{cm}$

$\begin{array}{llllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10\end{array}$

How long is each line?
How many cm long is each line?


## Ahin 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.

## Target 300

Counting and writing the 200s

Count from 2OI 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 IO numbers after 300 . 300; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\square$ ; ___

## What's the jump?



Showing and comparing
a. Write the numbers that go in each card.

b. Write the numbers in order from smallest to biggest.
$\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; ; ; ; ;


c. $276+148$

a. 158-146

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

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

Dumis method

+ $\underbrace{158-146}$
$=0+10+2$
$=12$
b. 194-122

c. 288-199
$\square$


O

## Target 400

Counting and writing the LOOs
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; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ;

## Count forwards and backwards

a. Counting forward from 300 in tens.

b. Count back from 400 in tens.

Start


## Write as one number

$$
\begin{array}{ll}
300+20+4= & 300+10+5= \\
300+50+3= \\
300+60+2= \\
300+70+7= \\
300+80+1= & 300+90+9= \\
300+40+8=
\end{array}
$$

$\qquad$
$\qquad$
Write the answers in order from smallest to biggest.

## Weighing in



Add some kilograms.
Add and write the answers.

(R)


Rounding off and adding!

| $\sqrt{3}=$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 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 1 Okg .

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

Estimate the total mass of the 5 animals.



## Combine their mass

## Steps

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

- 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 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $x^{25}+b^{2}+2 x$ |  |  |  |
| $+1$ |  |  |  |



Vusi's mass
Vusi adds his own mass to the mass of IN and
Their total mass is 239 kg . How much does Vusi weigh? Show you answer.
$\square$

## 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.

## Target 500

Counting and writing

| 401 |  |  |  | 405 |  |  |  |  | 40 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 411 |  |  |  |  |  |  |  |  | 420 |
|  | 422 |  |  |  |  | 427 |  |  |  |
|  |  |  | 434 |  |  |  |  |  |  |
|  |  |  |  |  | 446 |  |  |  |  |
|  |  |  |  |  |  |  | 458 |  |  |
|  | 462 |  |  |  |  |  |  |  | 470 |
|  |  | 473 |  |  |  | 477 |  |  |  |
| 481 |  |  |  |  |  |  |  |  | 490 |
|  |  |  |  |  |  |  |  | 499 | 500 |

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

500; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ;
d. Count in 2 s . Write the next 8 numbers in the 2 s pattern.

400; 402; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ;
e. Count in 5 s . Write the next 8 numbers in the 5 s pattern.

400; 405; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ;
©
7
8

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 | $400+10+5$ |
| :--- | :--- | :--- |
| $446+10$ |  |  |
| $455+10$ |  |  |


| $398+10$ |  |  |
| :--- | :--- | :--- |
| $424+10$ |  |  |
| $460+20$ |  |  |

## More adding and subtracting


(0, ${ }^{2}$ You are going to use Busi's and Dumi's methods again to add.
a. $245+231$

## Busis method

$=200+200+40+30+5+1$
$=400+70+6$
$=476$
Dumis method

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

b. $278+136$

c. $265+148$
$\square$
$1 \quad 2 \quad 3 \quad 4 \quad 5$
6 7
8


Dumis method

$=152$
b. $489-456$

c. $482-16 \mid$


Reaching the target

Study the picture.
How much more to reach the target?


## 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | IO | II | I2 | I3 |
| N | 0 | 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!
a.

What shape will number 16 be? Tick $(\checkmark)$ the right one. What shape will number 18 be? Tick $(\checkmark)$ the right one. What shape will number 23 be? Tick( $\checkmark)$ the right one.
b.

Number 50 will be a 米.
Number IOO will be a O.

Number 28 will be a $\mathbb{C}$.


Which is more?
To get R2,50 a day pocket money
for June and July.
Or to get RI5O total pocket money for the two months?

Show how you worked it out.

## Symmetry

What do you notice about these shapes?


Draw a line of symmetry for each shape.

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.

(C) 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.

a.



Create your own symmetrical carpet using shapes.


Complete and multiply

| I basket holds___ apples. | $1 \times 10=10$ |
| :--- | :--- |
| 3 baskets hold $\quad$ apples. | $3 \times 10=$ |
| 5 baskets hold $\quad$ apples. |  |
| 4 baskets hold $\quad$ apples. |  |
| 2 baskets hold $\quad$ apples. |  |


| I crate holds IOO apples. | 2 crates hold ___ apples. |
| :--- | :--- |
| 3 crates hold $\quad 4$ crates hold ___ apples. |  |
| 5 crates hold $\quad$ apples. | 2 half crates hold $\quad$ apples. |

6 7
8

## There are

$\qquad$ baskets in one crate.

There are $\qquad$ apples in one crate.

How many apples are there altogether?


Calculating, showing and writing
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 |
| $4 \text { crates }+7 \text { baskets }+2 \text { apples }$ | apples |

## Multiplication and division (IO)



Counting the apples.
Fill in the table.
How many baskets hold the apples?

| Apples | 10 | 20 | 30 | 40 | 50 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Baskets | 1 | 2 |  |  |  |


| $\div$ sum |  |  |  |  | $50 \div 10=5$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\times$ 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 you answers

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



$$
\begin{equation*}
\square \times \square=\square \tag{6}
\end{equation*}
$$

## b.



## Count in Rs

Counting forwards and backwards in 2 s
a. 232; 234; $\qquad$ ; $\qquad$ 242; $\qquad$ ; $\qquad$
b. 500; $\qquad$ ; 496; $\qquad$ ; $\qquad$ ; 490; $\qquad$ ; $\qquad$ ; $\qquad$
c. 460; $\qquad$ ; $\qquad$ ; 400; $\qquad$ ; 360; $\qquad$ ; $\qquad$ ; $\qquad$
d. 341; $\qquad$ ; Bbl; $\qquad$ ; 391; $\qquad$ ; 4 II; $\qquad$ ;


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.
$\qquad$ $\times$ $=$


6 7
8

How many gloves?
Write in the tables.
a.

| Pair of mmm gloves | $1$ | $\begin{aligned} & \text { mmm } \\ & \hline \text { mim } \end{aligned}$ | $\frac{\operatorname{minm}}{5}$ | $\begin{aligned} & m m m \\ & 50 \end{aligned}$ | $\frac{\operatorname{mmm}}{4}$ | $\begin{aligned} & \operatorname{smm} \mathrm{m} \\ & 40 \end{aligned}$ | $3$ | $30$ | $100$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of gloves | 2 |  |  |  |  |  |  |  |  |

b.

| Single gloves | 20 | 21 | 70 | 73 |
| :--- | :--- | :--- | :--- | :--- |
| Pairs that <br> can be made |  |  |  |  |
| Single gloves <br> left over |  |  |  |  |

Count in twos
a. Which number comes in between?

| $264, \ldots, 268$ | $391, \ldots, 395$ | $414, \ldots, 410$ |
| :--- | :--- | :--- |

b. Write the next two numbers.
$373,375,377,379$
480, 482, $\qquad$ , $\qquad$ 262, 264 $\qquad$ , $\qquad$
c. Write the next two numbers.

346, 348, $\qquad$ ,

415, 417, $\qquad$ , 297, 299, $\qquad$ , $\qquad$

## Pave with tiles



Planning a garden

Mrs Mabena has some pretty tiles.
She uses them to pave an area in her garden.
There are $b$ square tiles of the same size.


| I can make <br> I row with 6 tiles. | I can make 2 rows with <br> 3 tiles in a row. | I can make 3 rows with <br> 2 tiles in each row. |
| :---: | :---: | :---: |
|  | $\square$ | $\square$ |
|  |  |  |
|  |  |  |

Now it's your turn!
Shade blocks to show how you can arrange 8 and 9 square tiles.


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.



## 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!

| $12=2 \times \square$ | $3 \times \square=12$ | $9=\square \times 3$ |
| :--- | :--- | :--- |
| $6=3 \times \square \times 3=12$ | $24=3 \times \square$ |  |

## 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 $(\checkmark)$ the number sentences that show the total number of candles.

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

6 7
8

Counting forwards and backwards in 5s
a. 85 ; $\qquad$ ; $\qquad$ ; 70; $\qquad$ ; $\qquad$ ; 55; $\qquad$ ;
b. 24 O ; $\qquad$ ; $\qquad$ ; 255; $\qquad$ ; $\qquad$ ; $\qquad$ ; $\qquad$ ; 280
c. 405 ; $\qquad$ ; 395; $\qquad$ ; $\qquad$ ; 380; $\qquad$ ; $\qquad$ ; 365; $\qquad$


## Collecting R5 coins

The children collect R5 coins. How many R5 coins do they need to collect to have R $\qquad$ ? We have done the first two for you.

| $\begin{gathered} R 5 \div R 5 \\ =I \text { coin } \end{gathered}$ | $\begin{gathered} \mathrm{RIO} \div \mathrm{R} 5 \\ =2 \text { coins } \end{gathered}$ | RI5? |  | R2O? | R25? |
| :---: | :---: | :---: | :---: | :---: | :---: |
| R3O? | R35? | R 4 O ? |  | R45? | R50? |
| $2 \times R 5=$$\square$$3 \times R 5=R$ |  | $4 \times R 5=R$ |  |  |  |
|  |  | $6 \times R 5=R$ |  |  |  |

Multiplying by 5s

$$
\text { Example: }|\times 5=5 ; \| \times 5=55 ; 2| \times 5=105
$$

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 |  |  |  |  |  |  |  |  |  |

## Working with time



Drawing the times

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Half past 5 | Quarter to eleven | Quarter past I2 | 12:45 | 6:15 | 4:30 |



Nomsa's mom leaves home at 2:30.
She comes back at 5:15.

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

How long is she out for?

$\begin{array}{llllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10\end{array}$

## Time problems

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 $|3:| 5$.

She finishes at 14:45.
How long does Tumi study for?


## Count in 3 s and 4 s

## Pots with 3 legs

Add and write the answers.

a. How many pots in a row?
b. How many legs in a row?
c. How many rows of pots?
d. How many legs altogether? Show how you work it out.

Tick $(\checkmark)$ which number sentences below show the total.
$21 \times 7=\square$
$3 \times 7 \times 3=\square$
$3 \times 4 \times 2=\square$
$2 \mathrm{I} \times 3=\square$


How many legs?
Think fast. Think smart.

| 1 pot | 3 | legs |
| :---: | :---: | :--- |
| 2 pots |  |  |
| legs |  |  |
| 5 pots |  |  |


| 10 pots | $\square$ | legs |
| :---: | :--- | :--- |
| 15 pots | $\square$ | legs |
| 13 pots | $\square$ | legs |


| 5 pots | $\square$ | legs |
| :---: | :--- | :--- |
| 12 pots | $\square$ | legs |
| 14 pots | $\square$ | legs |

12
3
45
6
7
8
q
10


Table legs

a. How many tables in a row?
b. How many legs in a row?
c. How many rows of tables?
d. 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 |  |  |  |  |  |  |  |

## 56

## Count in 50 s



One child, one blanket!
How many children? Estimate, then count.


All the children in the picture get a blanket. How many children are there?

| Estimate | Count | Compare |
| :--- | :--- | :--- |
|  |  |  |

How many are © boys? $\qquad$ How many are © girls?


## O

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.

- How many balls are in each box? |  | - How many balls are in each box? |  |
| :--- | :--- | :--- |
| - How many balls in the purple box? $\square$ | - How many balls in the purple box? |  |
| - What fraction is in the purple box? | $\square$ | - What fraction is in the purple box? |



|  | $\infty$ 0 <br> 0 0 <br> 0 0 <br> 0 0 |
| :---: | :---: |
| How many circles do you count? <br> What is $\frac{1}{2}$ of the circles? | How many circles do you count? <br> What is $\frac{1}{4}$ of the circles? <br> What is $\frac{2}{4}$ of the circles? <br> What is $\frac{3}{4}$ of the circles? <br> What is $\frac{4}{4}$ of the circles? |

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.

| I whole |  |  |  |
| :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ |  |  |  |
| $\frac{1}{4}$ | $\frac{1}{2}$ |  |  |
| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |  |

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

How many quarters $\left(\frac{1}{4}\right)$ make one whole?
How many quarters $\left(\frac{1}{4}\right)$ make one half?
$\square$
$\square$
$\square$
b. Look at the diagrams and write a fraction for the shaded part.

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

## 58

## Fractions: halves, thirds and sixths

Divide the cans (cylinders) equally between the boxes.



How many circles do you count?

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


What is $\frac{1}{3}$ of the circles?
What is $\frac{2}{3}$ of the circles? What is $\frac{3}{3}$ 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?

- Show one half of the length the ruler. This equals to $\qquad$ cm
- Show one third of the length on the ruler. This equals to $\qquad$ cm
- Show one sixth of the length on the ruler. This equals to $\qquad$ cm


Look at the fraction strips. Complete the sentences.

| I whole |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ |  |  |  |  |  |  |  | $\frac{1}{2}$ |
| $\frac{1}{3}$ |  | $\frac{1}{3}$ | $\frac{1}{3}$ |  |  |  |  |  |
| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ |  |  |  |

- There are $\qquad$ halves in a whole.
- There are $\qquad$ thirds in a whole.
- There are $\qquad$ sixths in a whole.
- There are $\qquad$ sixths in a half.
- There are $\qquad$ sixths in a third. Write a fraction for the shaded part.



Circle the bigger fraction.

| a. | $\frac{1}{2}$ | $\frac{1}{3}$ |
| :--- | :--- | :--- |
| c. | $\frac{1}{2}$ | $\frac{2}{6}$ |

## Fractions: fifths

Divide the cans into the 5 boxes.


- In one fifth of the boxes are b cans.
- In two fifths of the boxes are $\square$ cans.
- In three fifths of the boxes are $\square$ cans.
- In four fifths of the boxes are $\square$ cans.
- In five fifths of the boxes are $\square$ cans.


Look at the picture and answer the questions.
How many chocolates are in the box? $\square$

- one fifth $\left(\frac{1}{5}\right)$ of the chocolates equal to $\square$
- two fifths $\left(\frac{2}{5}\right)$ of the chocolates equal to $\square$
- three fifths $\left(\frac{3}{5}\right)$ of the chocolates equal to $\qquad$
- four fifths $\left(\frac{4}{5}\right)$ of the chocolates equal to $\square$
- five fifths $\left(\frac{5}{5}\right)$ of the chocolates equal to $\square$
- On day I I ate $\frac{1}{5}$ of the chocolates. How many chocolates are left? $\square$
- On day two I ate another $\frac{1}{5}$. How many chocolates are left?

$\square$

12

3

4

5

©

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


Look at the fraction strips and answer the questions.


## Circle bigger or smaller

a. $\frac{1}{2}$ is bigger $/$ smaller than $\frac{1}{4}$.
b. $\frac{1}{3}$ is bigger/smaller than $\frac{1}{2}$.
c. $\frac{1}{5}$ is bigger/smaller than $\frac{1}{6}$.
d. $\frac{1}{6}$ is bigger/smaller than $\frac{1}{3}$.
e. $\frac{3}{6}$ is bigger/smaller than $\frac{2}{6}$.

## 60

## 3D objects



Count the boxes (prisms). $\square$
Count the balls (spheres). $\square$ Count the cylinders. $\square$


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:

cube $\square$

prism $\square$

prism $\square$

Are the faces of the prisms flat or curved? $\square$
Now make the cylinder from Cut-out sheet 4 .
Are the faces of the cylinder flat or curved? $\square$

6

Describe the position of the cylinder using the words.
$\square$

$\square$
$\square$


## Use the words below to complete the sentences.



Double and half

| Do you remember? | 2 is half of 4 | 4 is double 2 |
| :--- | :--- | :--- |
|  | 20 is half of 40 | 40 is double 20 |
| 200 is half of 400 | 400 is double 200 |  |

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


Finding halves

f.

370



More doubling and halving
Finding the doubles or halves

b.

c.

d.


Saving for a bicycle
Aakar saves R25 a week to buy this bicycle.
For how many weeks must he save?
Answer: $\square$ weeks

On sale

Sale RL,50
Half price: was R900


All the items are on sale for half the price.
Write the sale price next to each item.
a. Blankets RI9O

Sale price $\qquad$
c. Cushions R54

Sale price

b. Sheets RI54

Sale price $\qquad$
d. Chairs R22O

Sale price $\qquad$

## How many grands?



Musa wants the shirt. He only has half the amount.
How much does he still need? R


Aakar's shoes cost twice as much as these.
How much do Aakar's shoes cost? R $\qquad$


Phindi's dress is double the price of this one.
How much does Phindi's dress cost? R

## What goes in? What comes out?

Follow the example. Fill in the missing numbers.


## 63

## 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?


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

| $\square$ |
| :--- |
| $\square$ |
| $\square$ |

## 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.
$\qquad$
Predict: What if Phindi has 6 different colours of shirts and shorts?
How many outfits can she make? $\square$ 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 lb .

| 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.



