The background of the cover is a close-up photograph of peacock feathers, showing the intricate patterns and colors of the 'eyes'. The feathers are primarily green and brown, with prominent blue and purple circular spots. On the left side, there is a vertical teal bar with a white zigzag pattern.

Oxford International Primary Maths

1

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1 Numbers and Counting

Engage



Numbers and Counting

23

29

Where do you see numbers at home?



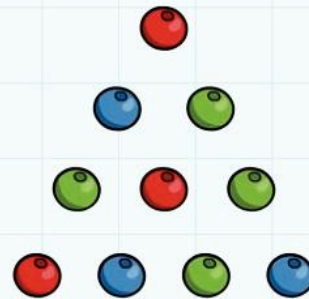
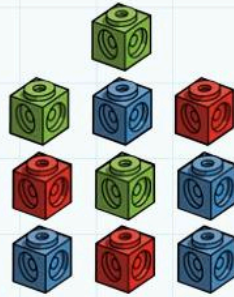
1A Counting objects

Discover

You will need:

- some cubes
- some beads.

Take a handful of cubes.



Sort them into colours.



Count each pile.

Colour the squares the same colour as the cubes.

Blue

Red

Green

Do the same with the beads.

Blue

Red

Green

Were there more beads or more cubes?

1A Counting objects

Explore

You will need:

- ten coins.



Put the coins in a small pot.



Without looking, take some coins from the pot.

Count the coins.



Draw them on a money bag. Count as you draw.

Repeat until all of your money bags have coins on them.

Circle the bag that has the most money.

1B Counting rhymes and actions

Discover

Five little ladybirds

*Five little ladybirds climbing
up a door.*

Draw **5** ladybirds on the door.



*One flew away, then there
were four.*

*Four little ladybirds sitting
on a tree.*

Draw **4** ladybirds on the tree.



*One flew away, then there
were three.*

*Three little ladybirds landed
on a shoe.*

Draw **3** ladybirds on the shoe.



One flew away and then there were two.

Two little ladybirds looking for some fun.

Draw **2** ladybirds having fun.



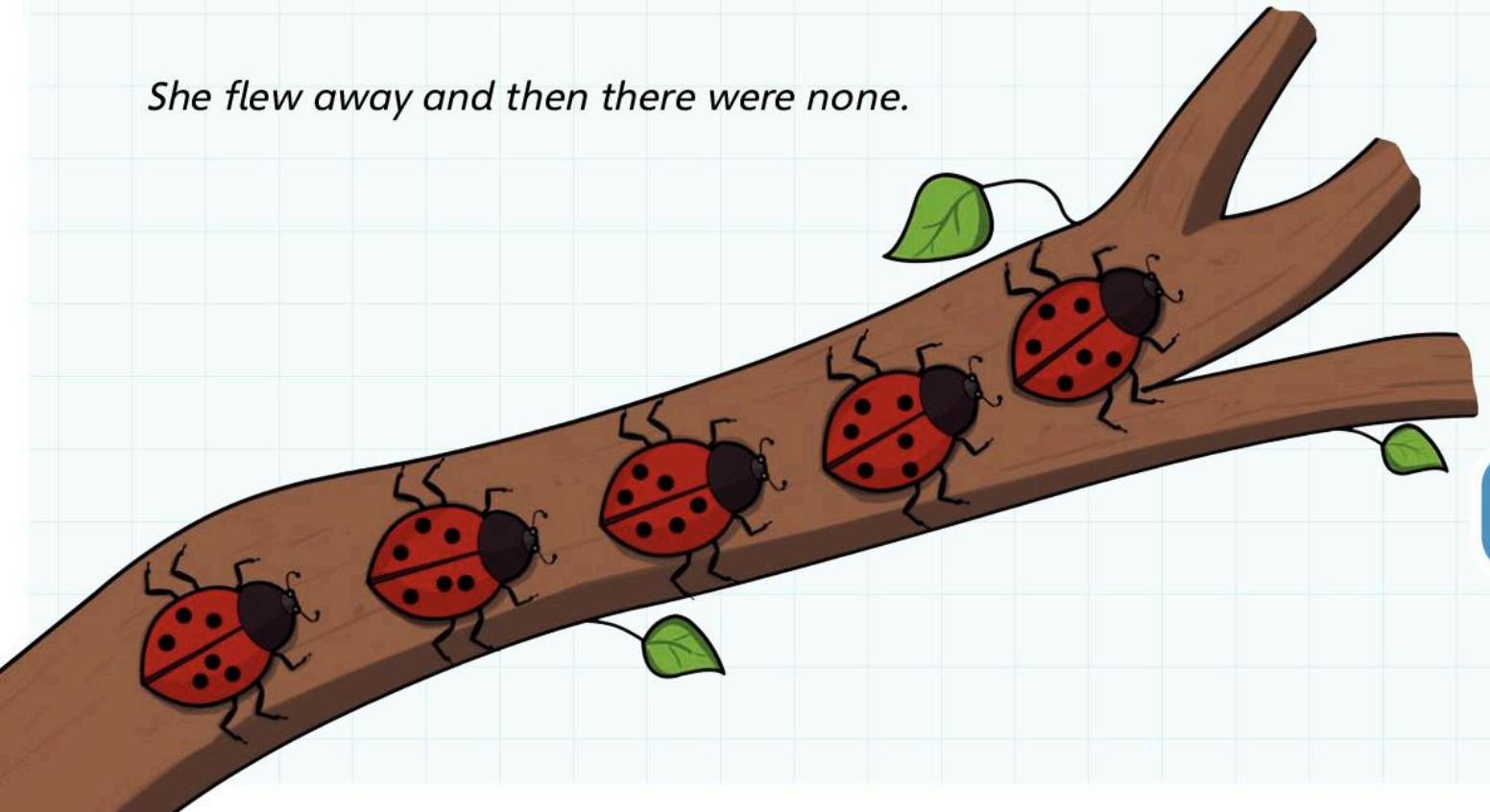
One flew away and then there was one.

One little ladybird sitting in the sun.

Draw **1** ladybird in the sun.



She flew away and then there were none.



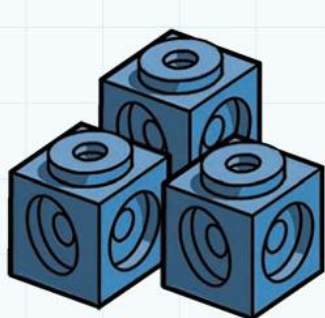
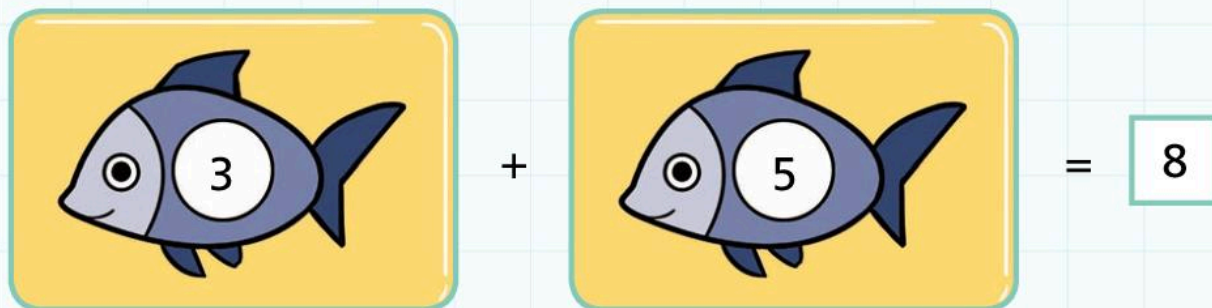
1B Counting rhymes and actions

Explore

Play the fishing game with a friend.

You will need:

- a set of number cards 1 to 10
- some cubes.



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

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

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

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

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

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

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

What is your highest total?

What is your lowest total?

1C Reading and writing numbers

Discover

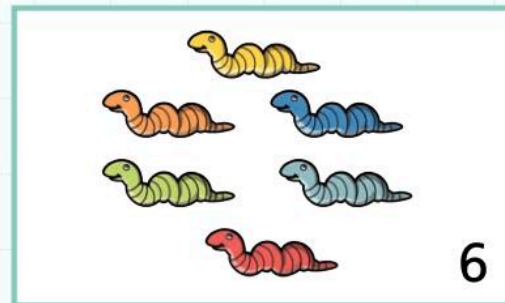
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

How many numbers do you know?

Choose any number.

Write it.

Draw some worms  to match your number.



Choose a number.

Write it.

Draw some shoes  to match your number.



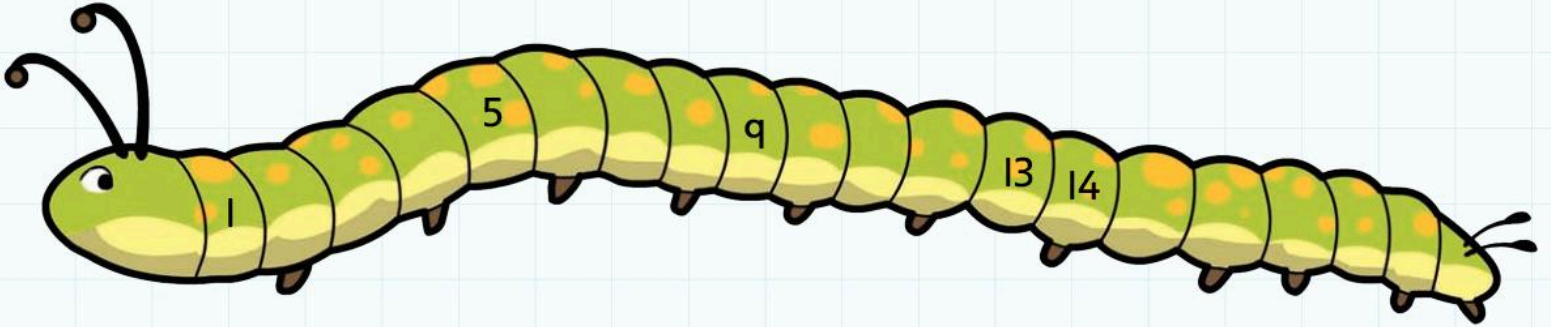
What is the number?



1C Reading and writing numbers

Explore

Write in the missing numbers.



Choose a ticket number.

Write it in the correct space in the number grid.

When the grid is full, count the numbers in order, starting from 1.

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

Did you write all the numbers in the correct spaces?

Did you have to change any?

1 Numbers and counting

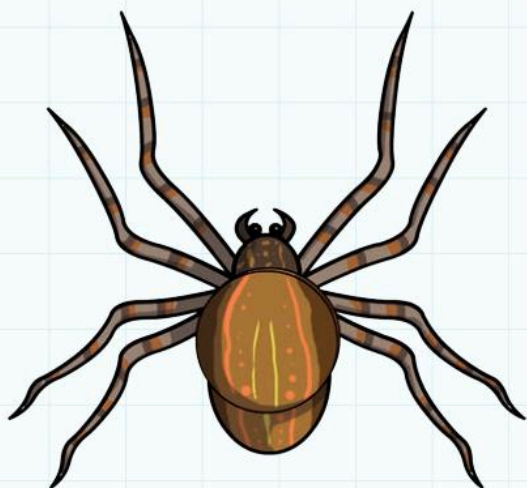
Connect

Play this game with a friend.

You will need:

- a dice
- a counter.

Put your counter on the spider.

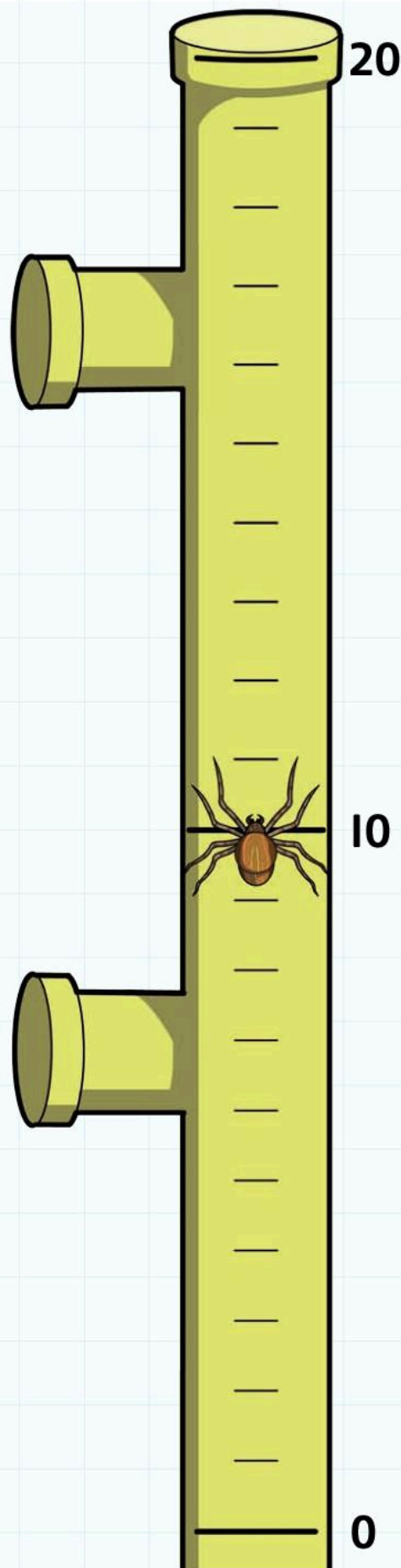


Take turns to throw the dice.

If you throw 1, 3 or 5, go up.

If you throw 2, 4 or 6, go down.

Who reached the top first?



1 Numbers and counting

Review

Pick two cards from a set of 0–9 digit cards.

Make two different 2-digit numbers.

3

9

0

7

I can make
39 and 93

I can make
7 and 70

Make two different numbers from your digits.

Colour them in on the 100-square.

Repeat four times.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

Complete these sentences using digits and words:

My biggest number is _____ which you write in words as

_____.

My smallest number is _____ which you write in words as

_____.

The number nearest 50 is _____ which you write in words as

_____.

The number nearest 30 is _____ which you write in words as

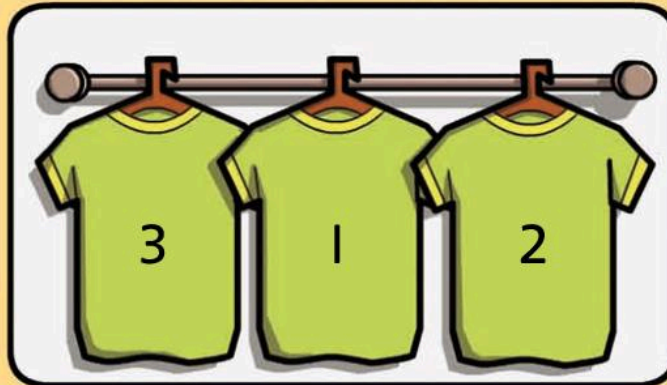
_____.

The number nearest 75 is _____ which you write in words as

_____.

2 Exploring Numbers

Engage



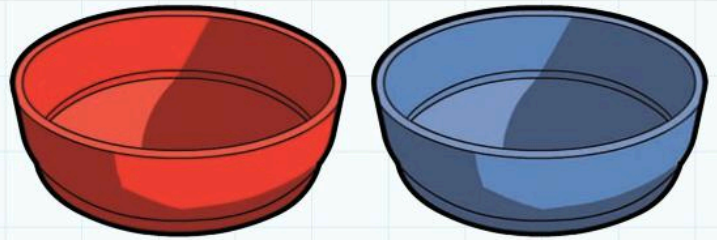
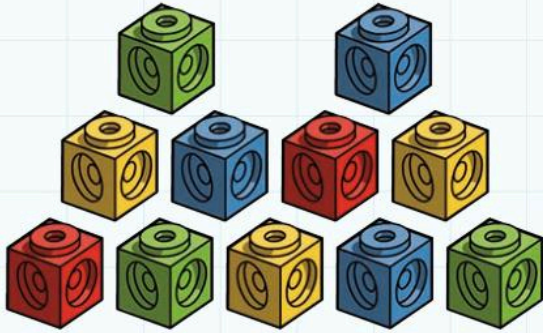
Numbers are all around us.

2A More and less

Discover

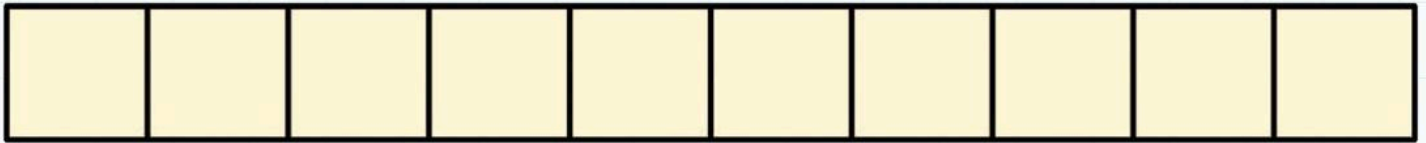
You will need:

- 11 interlocking cubes
- a red dish and a blue dish.

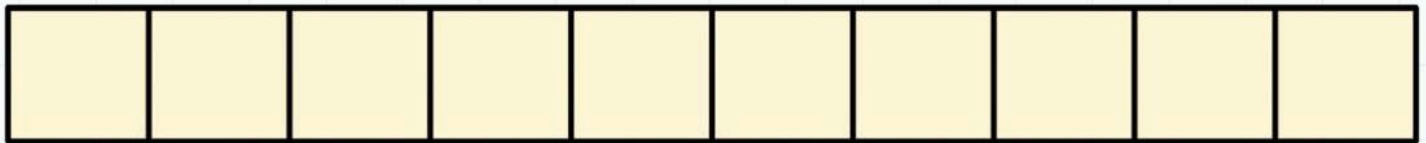


Put some of your cubes in the red dish and the rest in the blue dish.

Put the cubes from the red dish here.



Put the cubes from the blue dish here.



Which is the longer line?

The _____ dish made the **longer** line.

Which is the shorter line?

The _____ dish made the **shorter** line.

Write **more** or **less**.

There are _____ cubes in the **longer** line.

There are _____ cubes in the **shorter** line.

2A More and less

Explore

You will need:

- two counters
- a dice.



Throw the dice twice.

Move one counter to each number.

I landed on numbers _____ and _____.

Look at your numbers and write **more** or **less**.

is _____ than

is _____ than

Complete the tables.

| 2 More and 2 Less | | |
|-------------------|--------|--------|
| 2 Less | Number | 2 More |
| 5 | 7 | 9 |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |

| More or Less | | | | |
|--------------|----|--------------------------------|-----------------------|----|
| 8 | is | <input type="text" value="4"/> | _____ more _____ than | 4 |
| 6 | is | <input type="text"/> | _____ than | 9 |
| 10 | is | <input type="text"/> | _____ than | 5 |
| 12 | is | <input type="text"/> | _____ than | 15 |
| 1 | is | <input type="text"/> | _____ than | 10 |
| 20 | is | <input type="text"/> | _____ than | 13 |

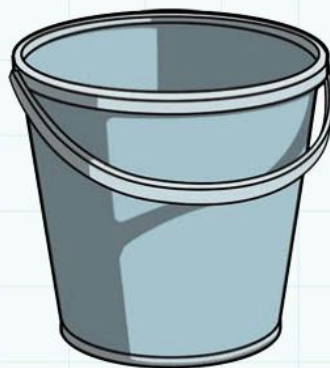
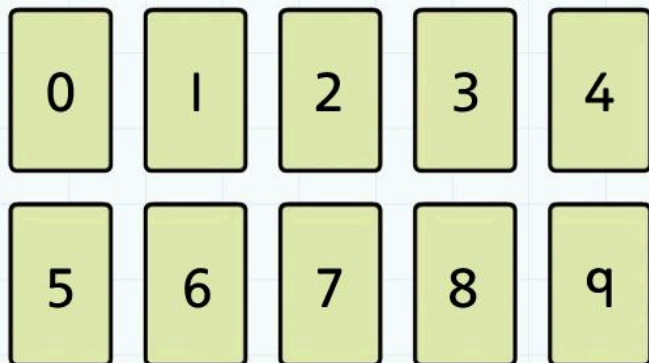
2B Between

Discover

Work in pairs.

You will need:

- a set of number cards 0–9
- a bucket or basket.



Play a game to find numbers between two numbers.

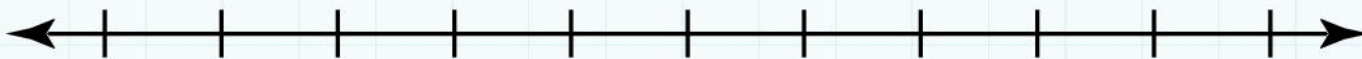
Mark on this line the **lowest** number and the **highest** number from your game.

Write all the numbers that come between them.



Play the game again.

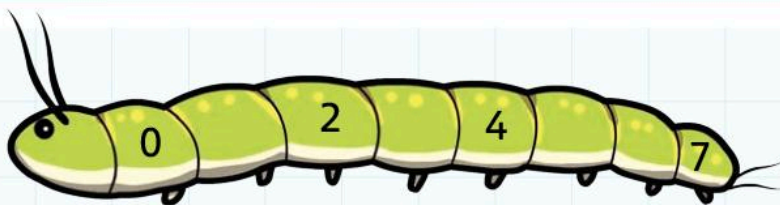
Mark on the line the highest number, the lowest number and all the numbers in between that you found.



2B Between

Explore

Look at these number patterns.



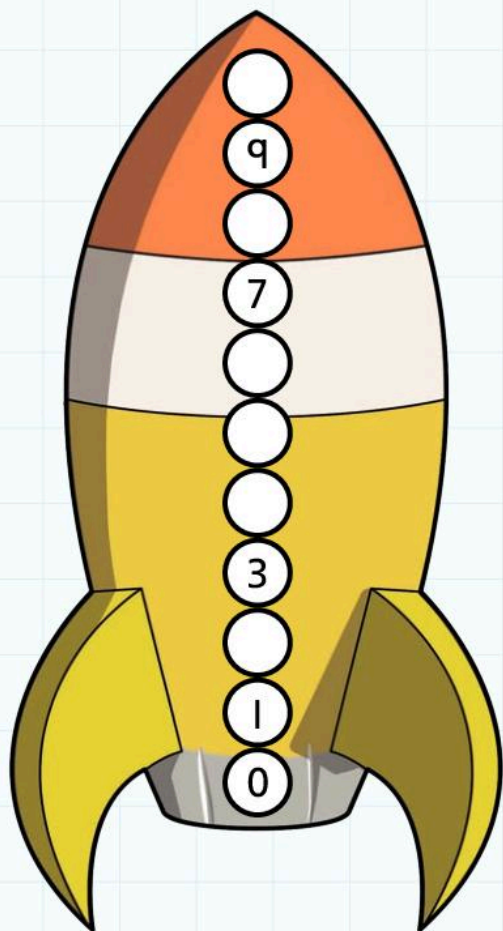
Finish them by writing in the numbers between the other numbers.

5, 6, , 8, , 10, , 12, 13

12, 13, 14, , 16, 17, , 19, 20

16, 15, 14, , 12, 11, 10, , 8, , 6

20, 19, , 17, 16, , , 13, 12

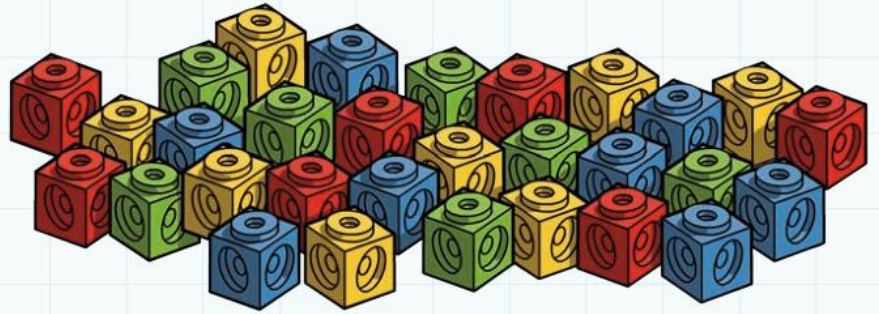


2C Tens and ones

Discover

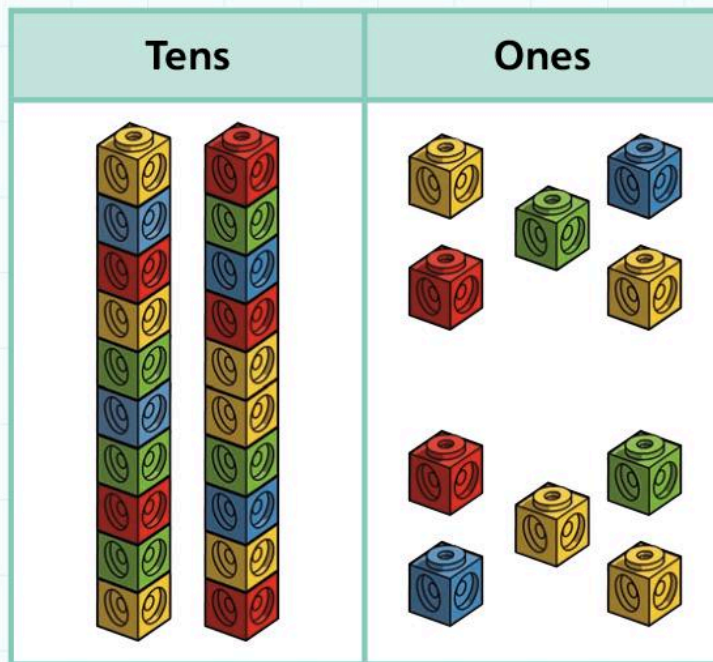
You will need:

- a 1–6 dice
- some interlocking cubes.



Throw the dice. Collect that number of cubes.

Put them in the 'ones' side of the mat.



When you have covered all of the cubes in the 'ones' side, join them together to make a tower.

Move the tower to the 'tens' side.

Any cubes that are left over go in the 'ones' side.

Keep playing until you have two 'tens' and some 'ones'.

How many 'tens' do you have? _____

How many are left over? _____

That makes _____.

2C Tens and ones

Explore

What are these numbers?

2 tens and 5 ones

1 ten and 8 ones

3 tens and 7 ones

24 is made of _____ tens and _____ ones.

18 is made of _____ tens and _____ ones.

8 is made of _____ tens and _____ ones.

Draw a line to match the numbers that are the same.

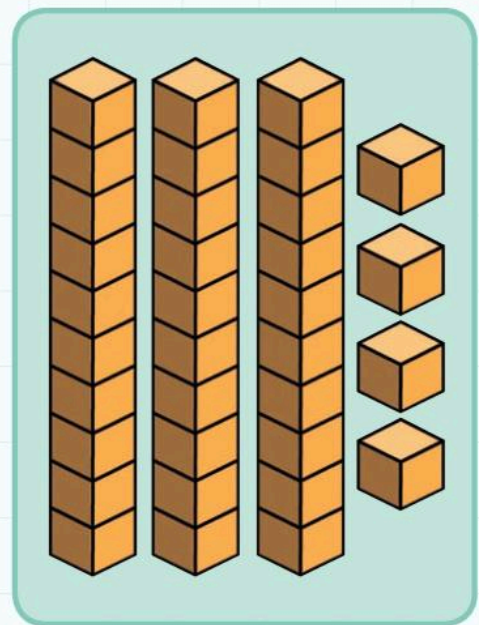
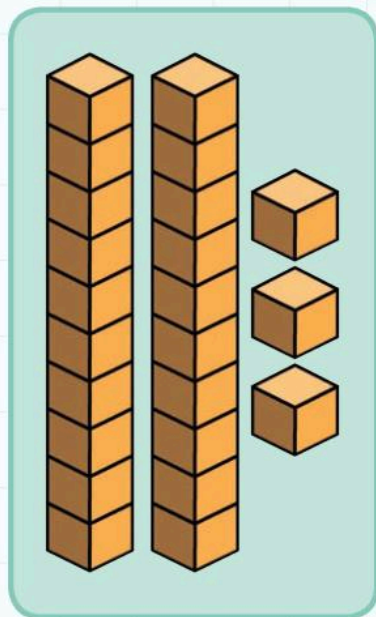
three tens four ones

23

34

$30 + 4$

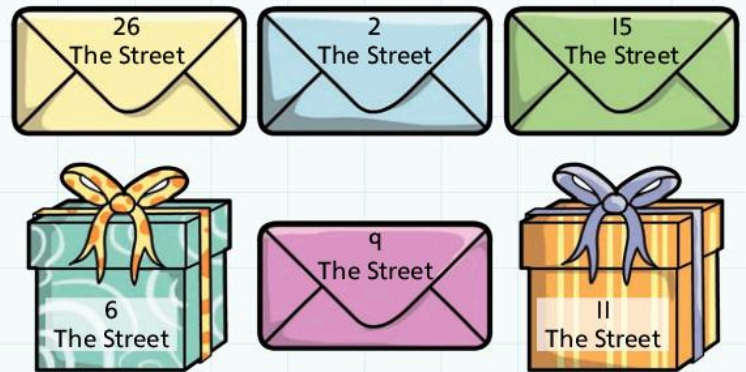
$20 + 3$



two tens three ones

2D Ordering numbers

Discover



The postman has dropped his bag!

The letters and parcels have fallen out.

Put them in the right order for him to deliver to the houses.

He should start with the lowest number and finish with the highest number.

Write the house numbers in order.

1st

2nd

3rd

4th

5th

6th

Match each rosette to the correct runner.



2D Ordering numbers

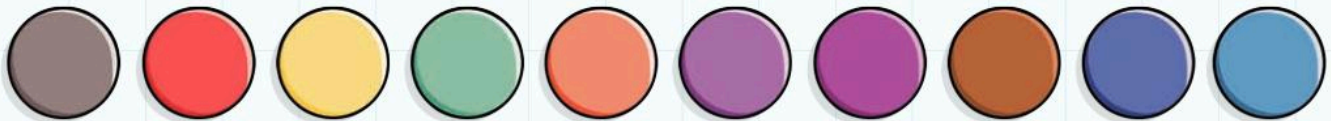
Explore

Draw a line to match the ordinal numbers.

| | | |
|---------|-------|-------|
| second | fifth | third |
| first | | |
| seventh | sixth | |
| tenth | | |
| eighth | ninth | |
| fourth | | |

| | | | |
|-----|------|-----|-----|
| | 10th | 1st | 6th |
| 4th | | | |
| | 3rd | 5th | 9th |
| | | | |
| 7th | 2nd | | 8th |

Colour in the answers.



Which colour is 2nd?



Which colour is last?



Which colour is 5th?



Which colour comes **after** the 3rd colour?



Which colour comes **before** the 7th?



Which colour comes before the 10th?

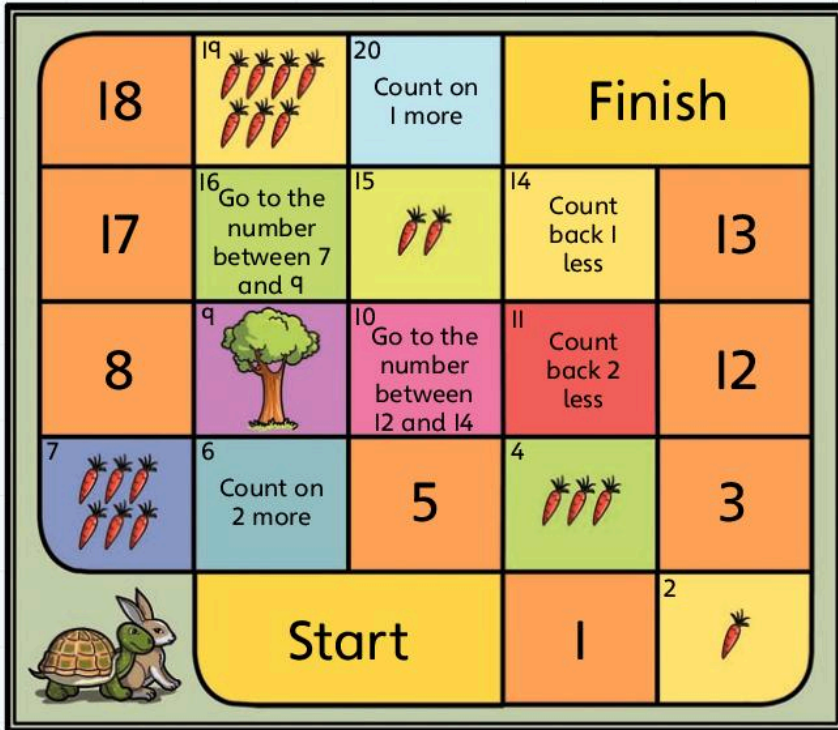


2 Exploring numbers

Connect

Play the hare and tortoise game in pairs.

You will need a dice and some cubes.



Draw your tens and ones.

I collected _____ carrots.

This is how I know.

My friend collected _____ carrots. This is how I know.

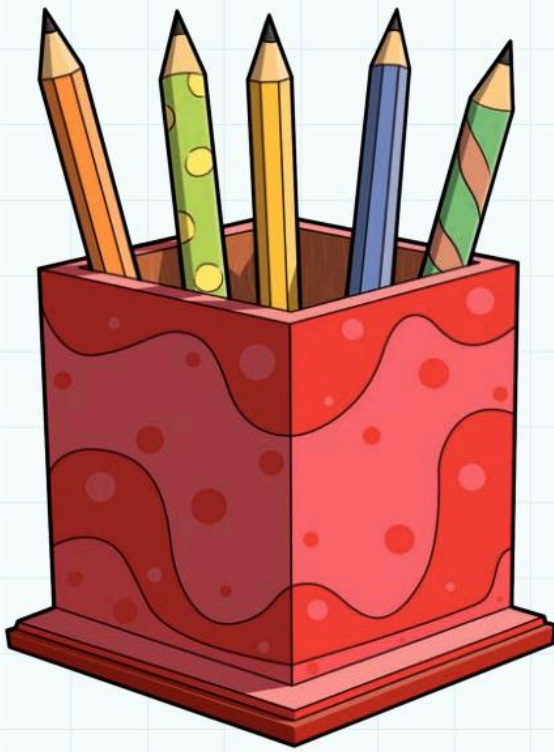
Draw their tens and ones.

| Tens | Ones |
|------|------|
| | |

| Tens | Ones |
|------|------|
| | |

2 Exploring numbers

Review



1. Complete these sentences.

There are _____ pencils in the red pot.

There are _____ pencils in the blue pot.

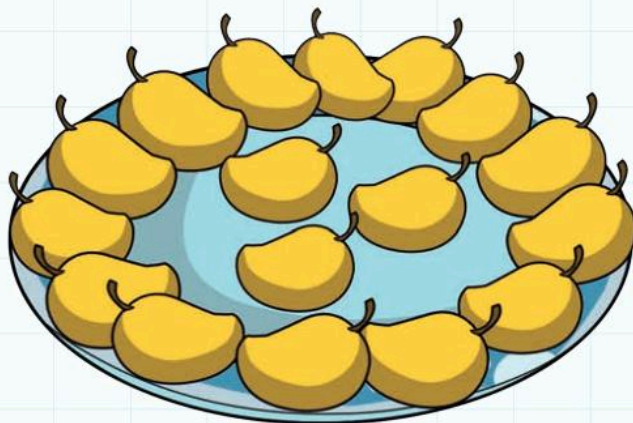
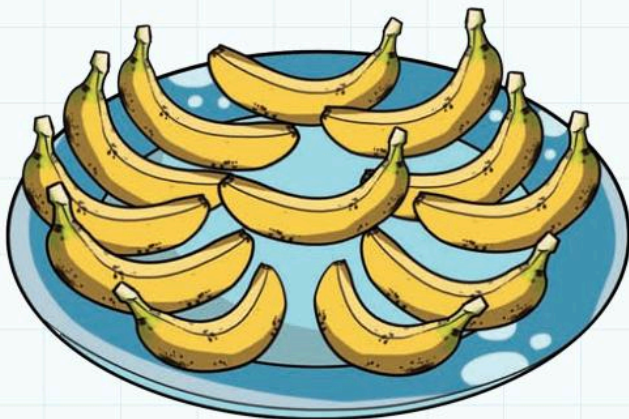
There are more pencils in the _____ pot.

There are less pencils in the _____ pot.

There are _____ less pencils in the _____ pot than the _____ pot.

2. Look at these pictures and write five sentences about each picture.

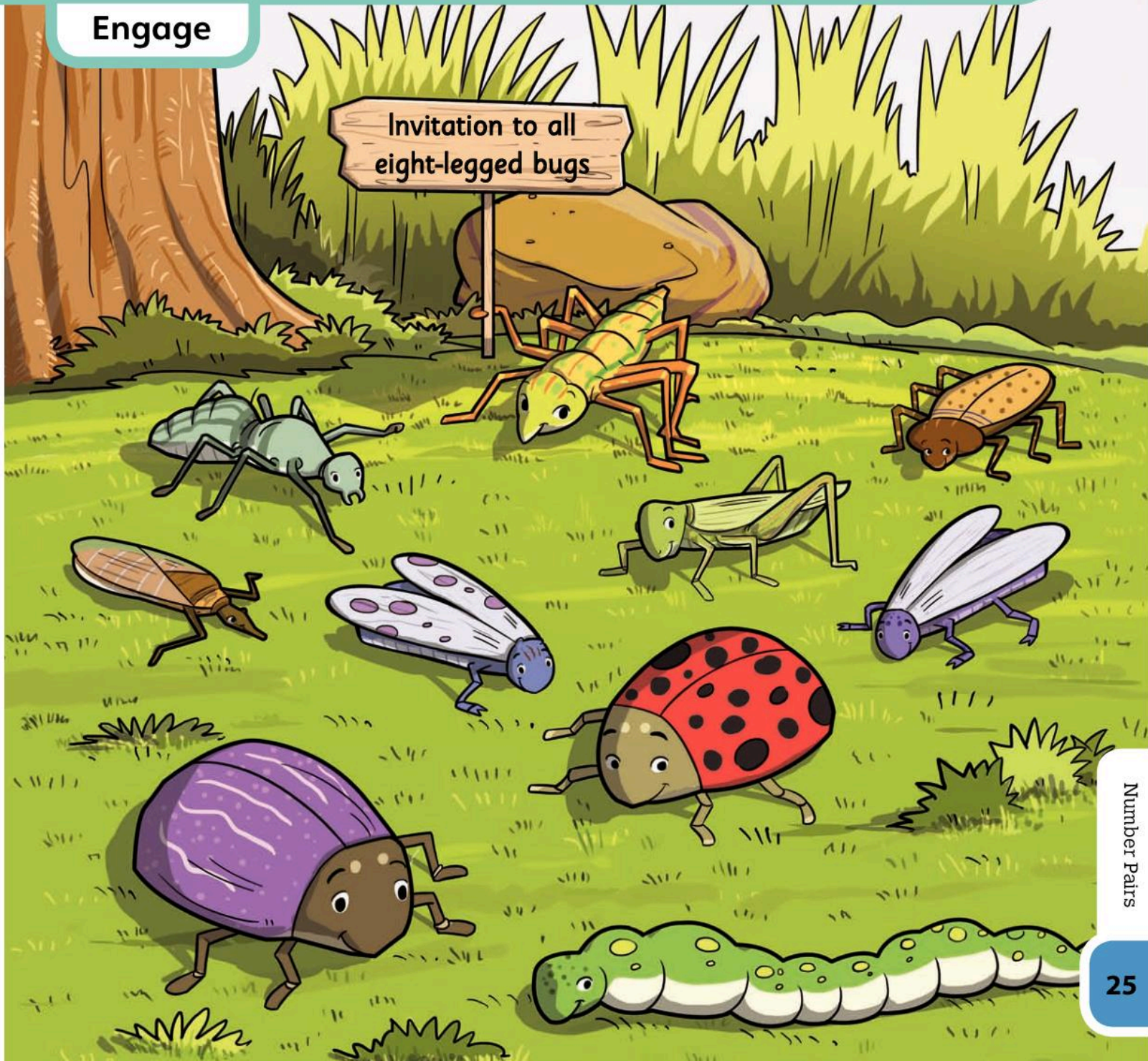
Use the answer to question 1 to help you.



3 Number Pairs

Engage

Invitation to all
eight-legged bugs



Which bugs could pair up to make eight legs?

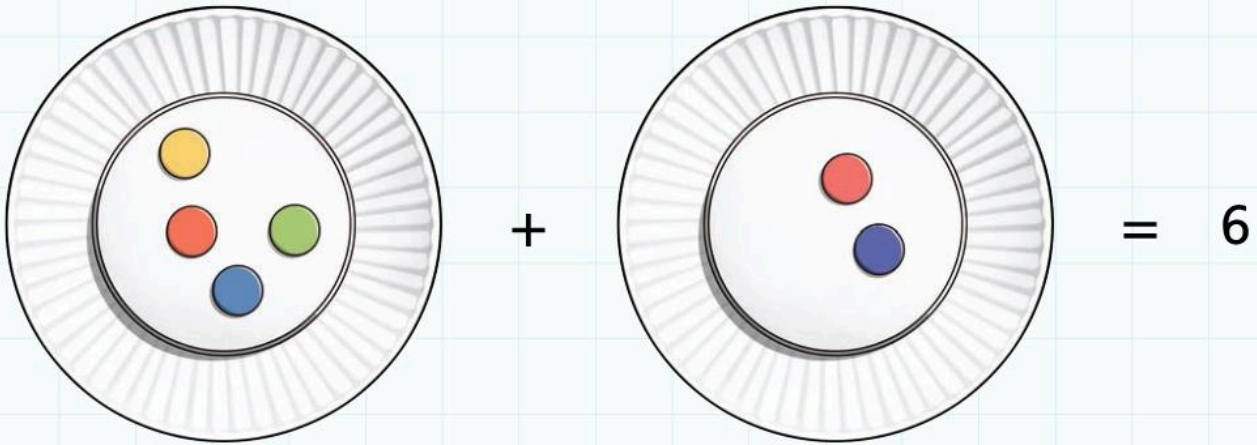
3A Number pairs for 6, 7, 8, 9

Discover

You will need:

- paper plates
- some counters.

How many different ways of making 6 are there?

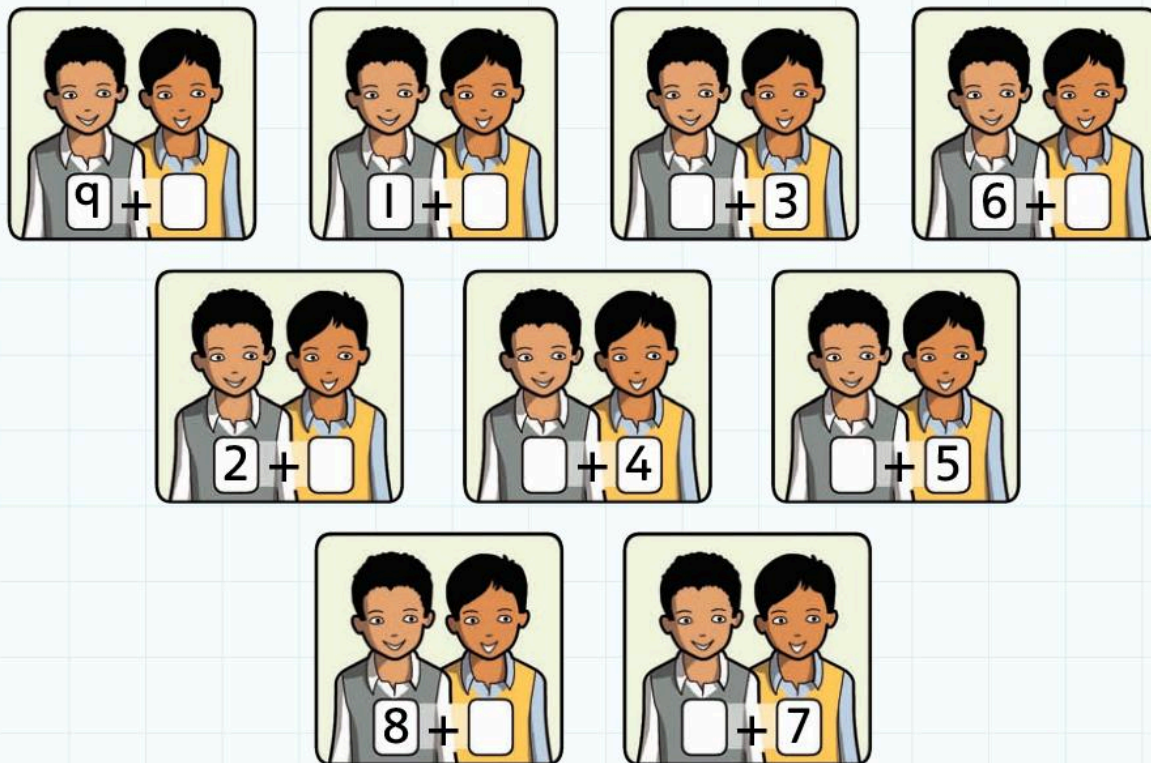


How many different ways of making 8 are there?

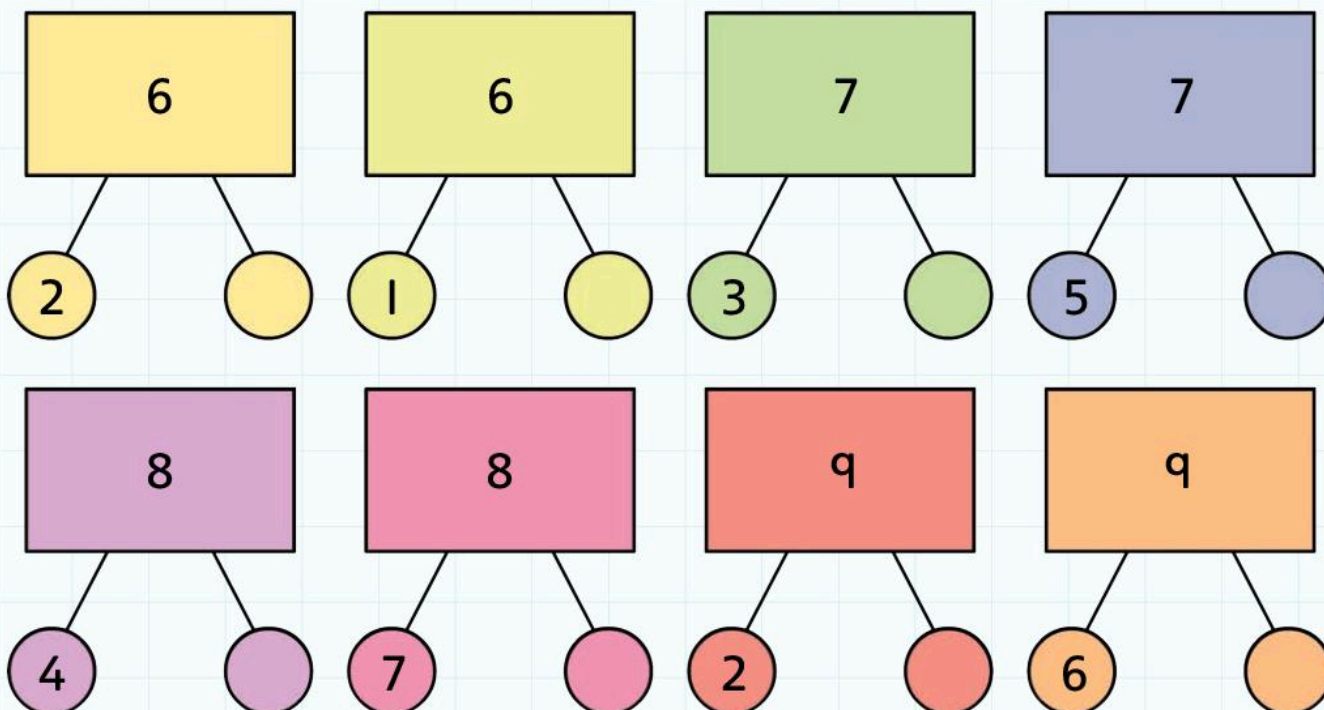
3A Number pairs for 6, 7, 8, 9

Explore

How many ways to make 9?



Find the number pairs.

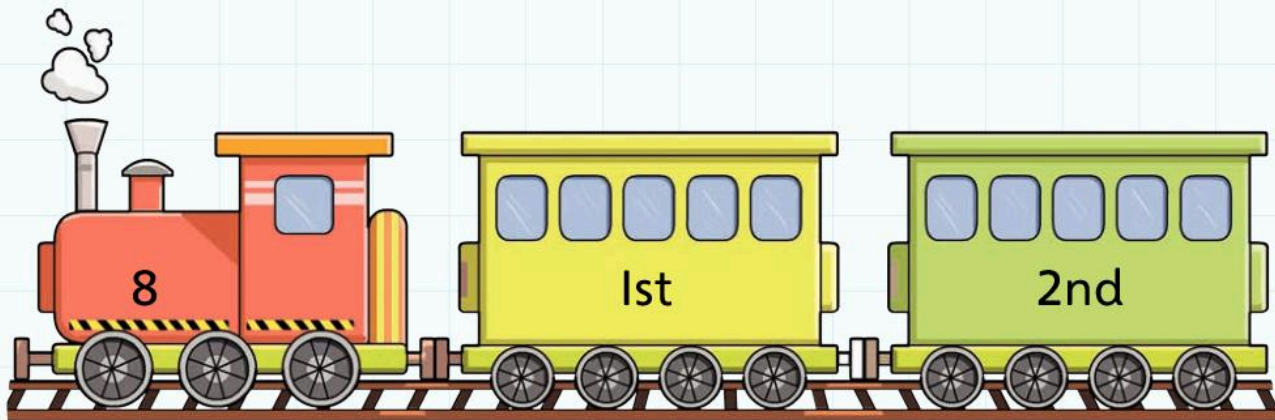
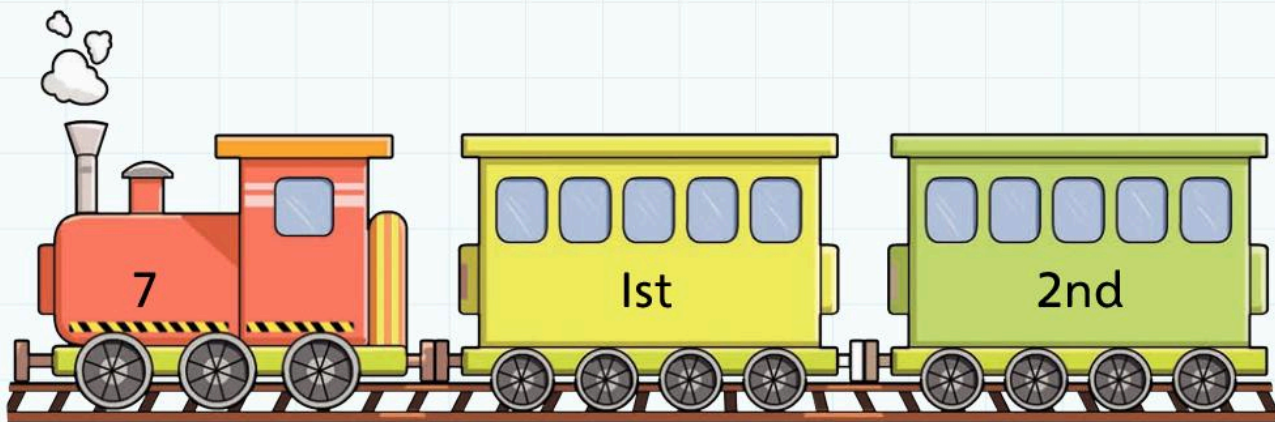
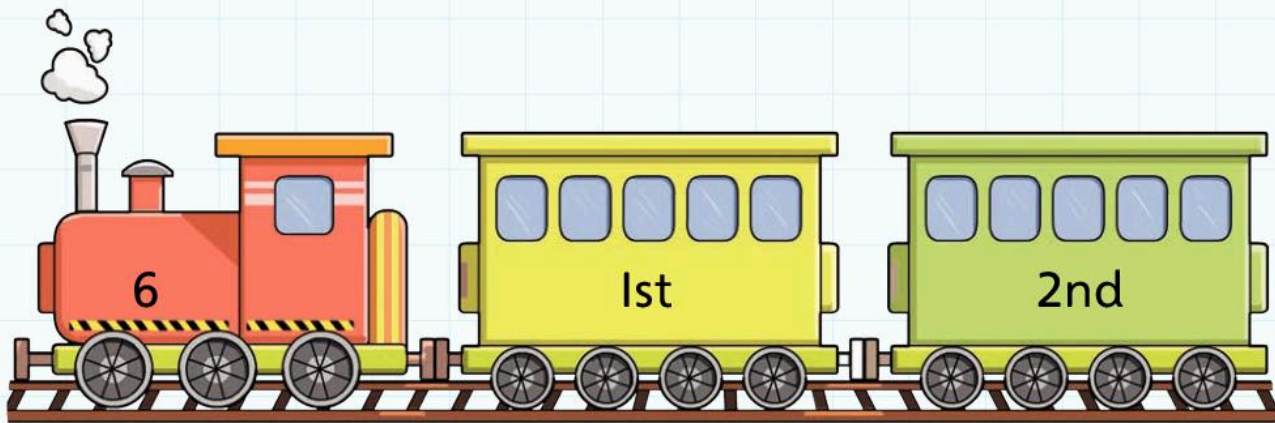


Look at the number on the engine.

Only that number of people can go on that train.

Draw the faces of the people at the windows.

How many people will you put in each carriage?



3B Number pairs for 10

Discover

Answer the questions to find the colours you need to use.

Write in the missing number.

Brown: $9 + \underline{\hspace{2cm}} = 10$

Yellow: $7 + \underline{\hspace{2cm}} = 10$

Green: $6 + \underline{\hspace{2cm}} = 10$

Purple: $4 + \underline{\hspace{2cm}} = 10$

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

White: $2 + \underline{\hspace{2cm}} = 10$

Red: $8 + \underline{\hspace{2cm}} = 10$

Orange: $1 + \underline{\hspace{2cm}} = 10$

Black: $3 + \underline{\hspace{2cm}} = 10$

Pink: $0 + \underline{\hspace{2cm}} = 10$

3B Number pairs for 10

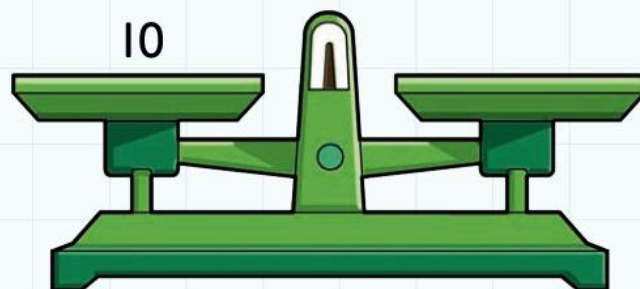
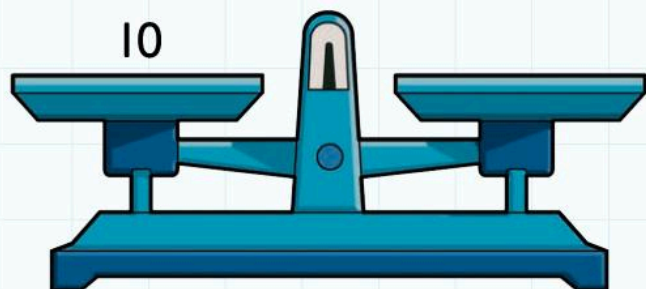
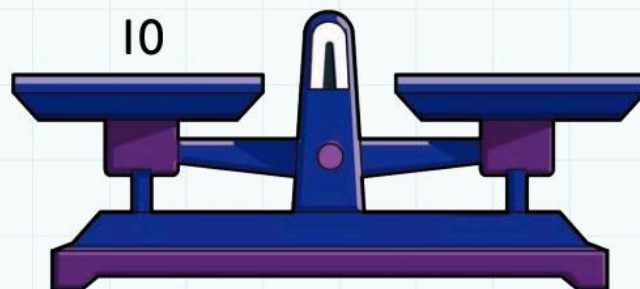
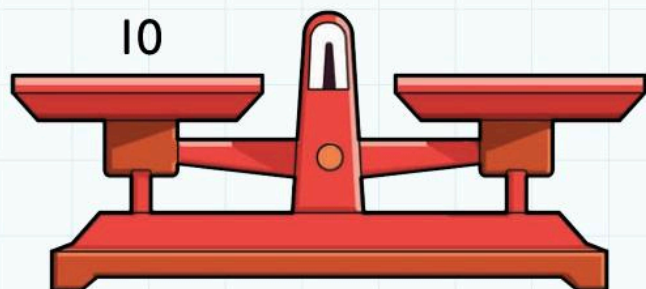
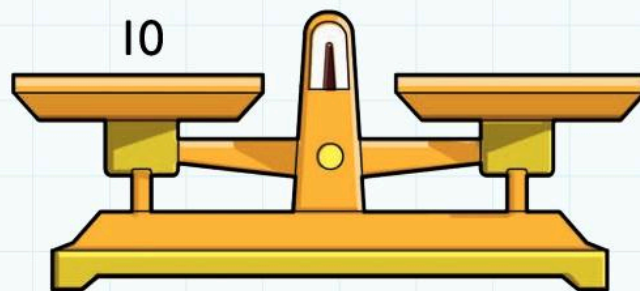
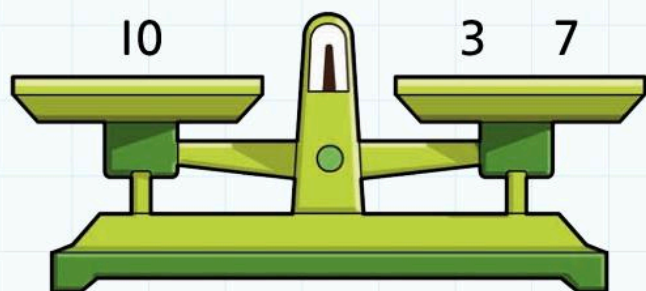
Explore

Balance the numbers.

Write two numbers on one side of the scales so they balance.
The first one is done for you.

Use each number once.

0, 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10

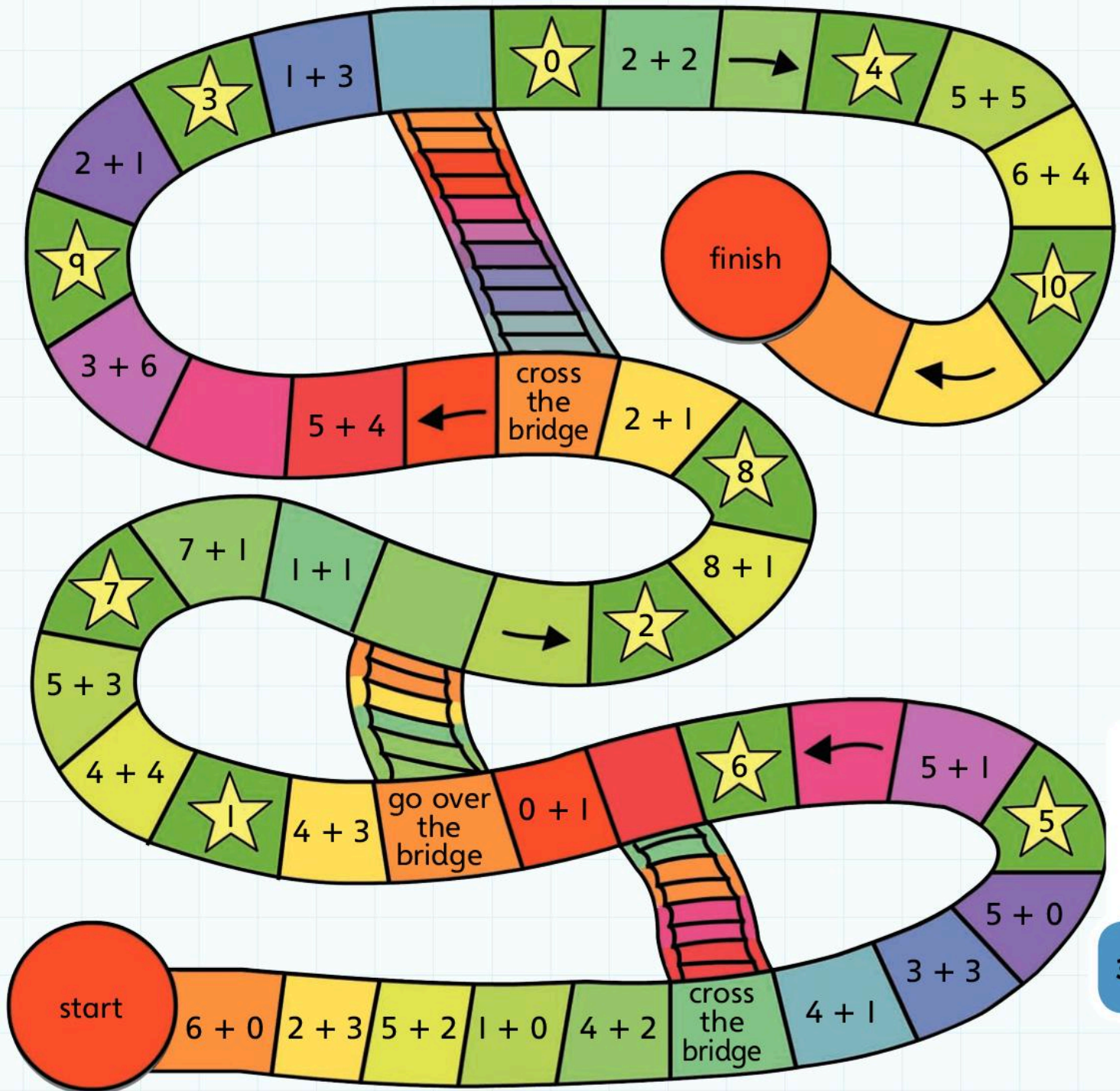


3 Number pairs

Connect

You will need:

- two counters
- a dice.



3 Number pairs

Review



How many ways can you make 10 cents?

5 cents and
5 cents makes
10 cents

1 cent, 1 cent,
1 cent, 1 cent, 1 cent
and 5 cents makes
10 cents too

4 Addition

Engage

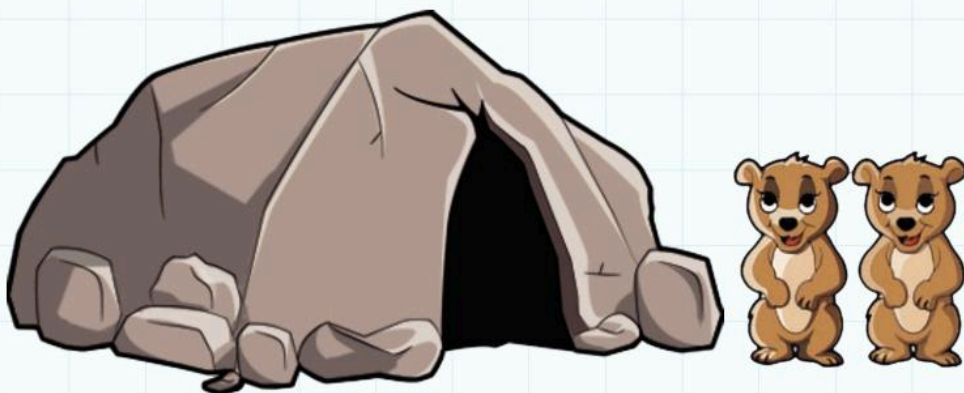
How many are there altogether?

4A Combining sets

Discover



There are 9 bears.



Complete these sentences. The first one has been done for you.

There are 2 bears outside. There are 7 bears in the cave.

There are 3 bears outside. There are _____ bears in the cave.

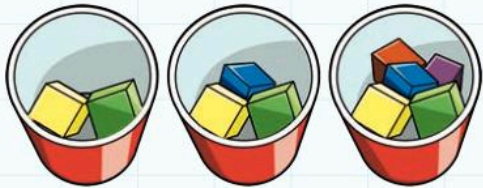
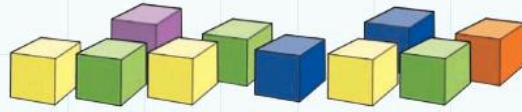
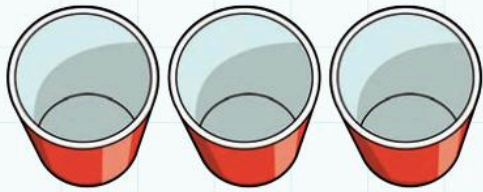
There are 5 bears outside. There are _____ bears in the cave.

There is 1 bear outside. There are _____ bears in the cave.

There are 4 bears outside. There are _____ bears in the cave.

There are 7 bears outside. There are _____ bears in the cave.

There are 6 bears outside. There are _____ bears in the cave.



$$2 + \square + \square = 10$$

Find different ways to make 10.

Use all the cubes.

Use all the cups.

$$\square + \square + \square = 10$$

$$\square + \square + \square = 10$$

$$\square + \square + \square = 10$$

$$\square + \square + \square = 10$$

$$\square + \square + \square = 10$$

$$\square + \square + \square = 10$$

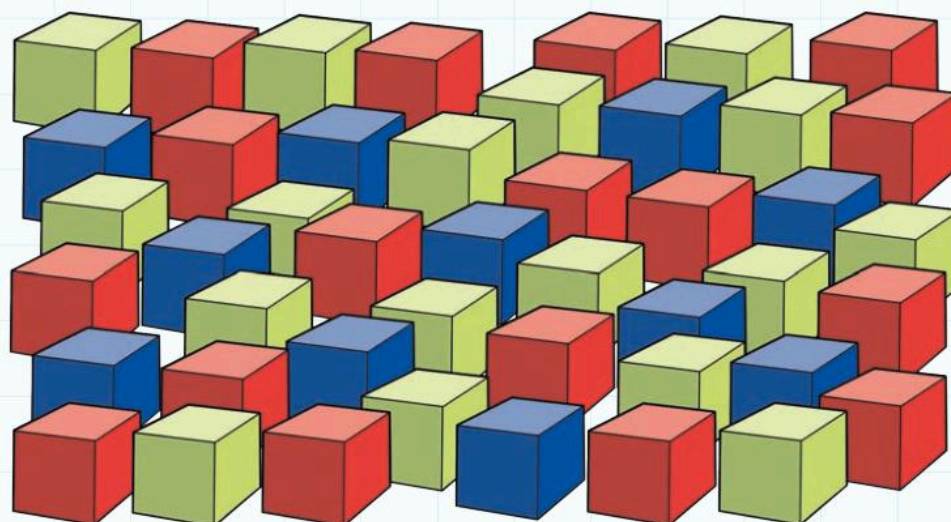
4A Combining sets

Explore

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | | 10 |
| 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |

You will need:

- some cubes.



Draw the cubes to show $5 + 2$

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

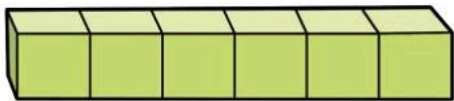
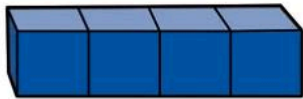
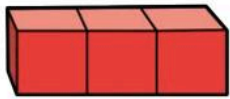
Draw the cubes to show $3 + 4 + 6$

$$3 + 4 + 6 = \underline{\hspace{2cm}}$$

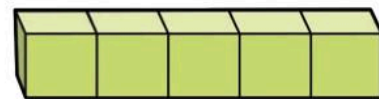
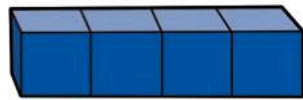
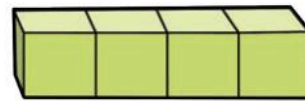
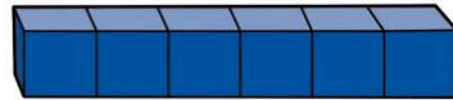
Draw the cubes to show $3 + 3 + 7$

$$3 + 3 + 7 = \underline{\hspace{2cm}}$$

Write the sums for these. The first one has been done for you.



$$3 + 4 + 6 = 13$$



I know $3 + 2 =$ _____. I know $2 +$ _____ $= 5$.

I know _____ $+ 3 = 5$. I know $2 + 3 =$ _____.

I know $6 + 4 =$ _____. I know _____ $+ 6 = 10$.

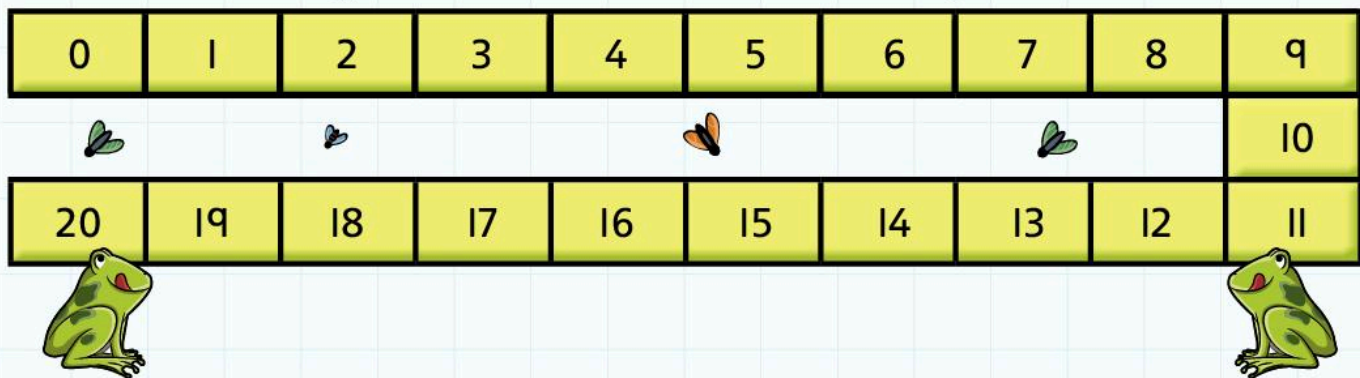
I know $4 +$ _____ $= 10$. I know $4 + 6 =$ _____.

I know $9 + 2 = 11$. I know $2 + 9 =$ _____.

I know $2 +$ _____ $= 11$. I know _____ $+ 2 = 11$.

4B Counting on

Discover



You will need:

- a counter or cube
- a dice.

Throw the dice.

Put your counter on that number.

Throw the dice again.

Jump on that number of places.

I was on _____. I jumped on _____. I **landed** on _____.

$$\square + \square = \square$$

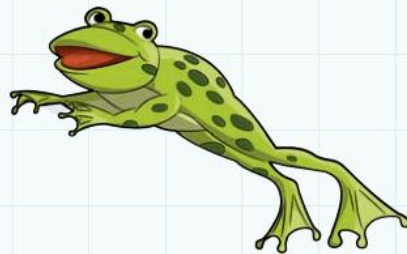
Do this four more times.

I was on _____. I jumped on _____. I landed on _____.

$$\square + \square = \square$$

I was on _____. I jumped on _____. I landed on _____.

$$\square + \square = \square$$



I was on _____. I jumped on _____. I landed on _____.

$$\square + \square = \square$$

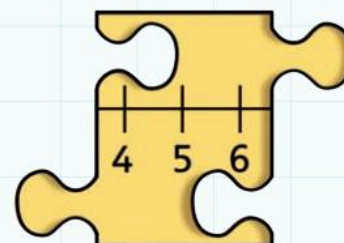
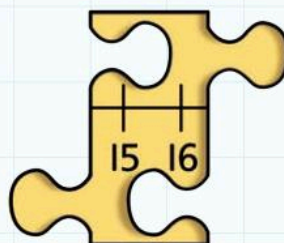
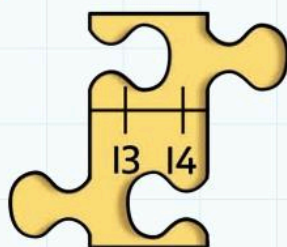
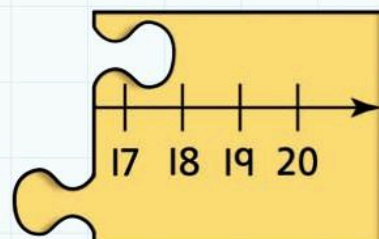
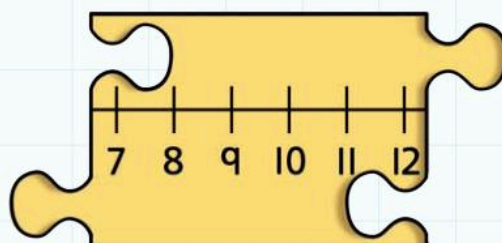
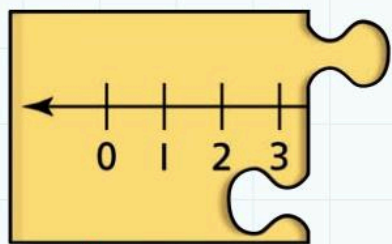
I was on _____. I jumped on _____. I landed on _____.

$$\square + \square = \square$$

Where do the numbers go?

Put the pieces of jigsaw in the right order.

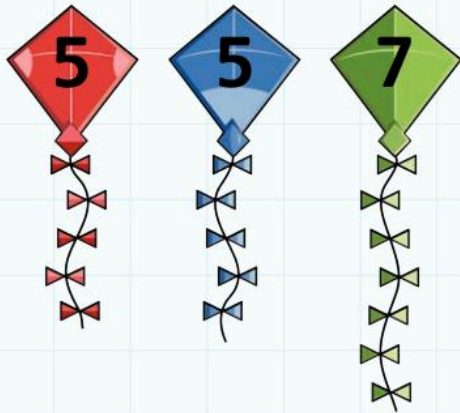
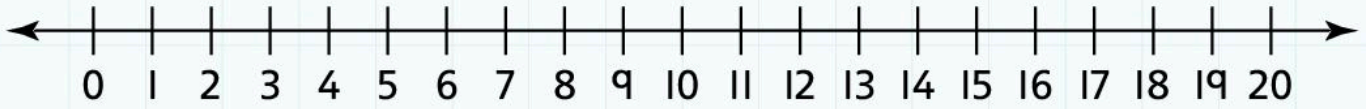
The first one is done for you.



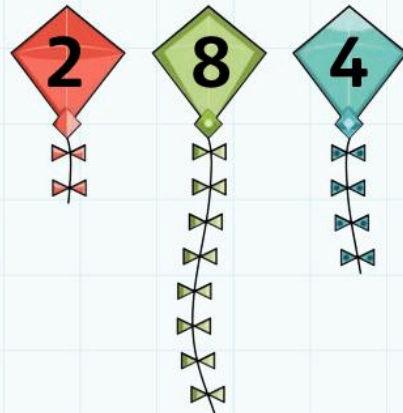
| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

4B Counting on

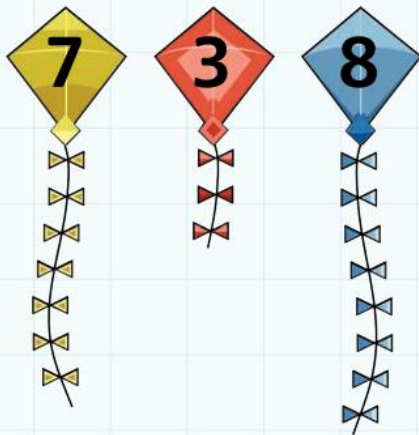
Explore



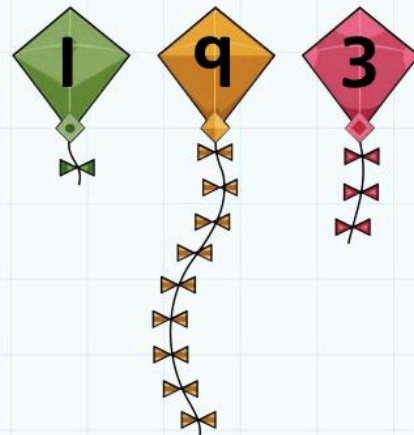
Total _____



Total _____



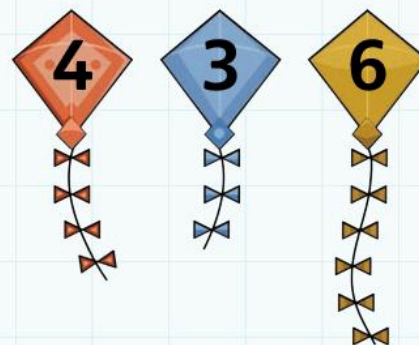
Total _____



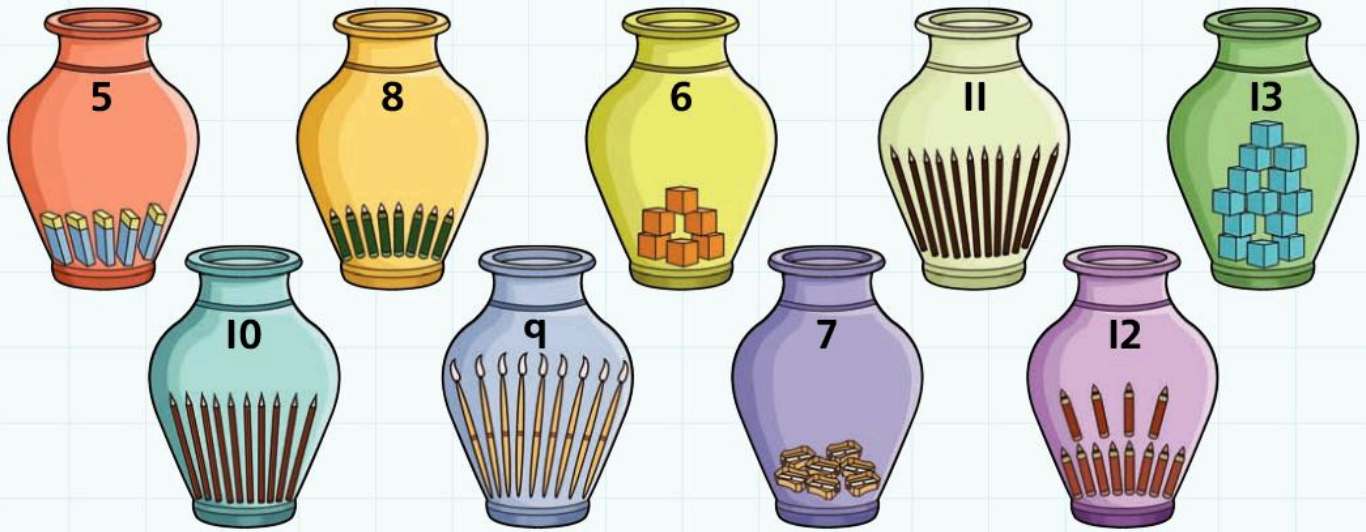
Total _____



Total _____



Total _____



Start with 5. Count on to 12.
Draw the pot you used.

Start with 8. Count on to 13.
Draw the pot you used.

Start on 6. Count on 6.
Draw the pot you ended on.

Start on 8. Count on 5.
Draw the pot you ended on.

Start on 9. Count on 0.
Draw the pot you ended on.

4 Addition

Connect

| | | | | |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Finish 30 | $3 + 4 + 6 + 1 =$ 29 | $2 + 0 + 6 + 8 =$ 28 | $7 + 1 + 2 =$ 27 | $3 + 5 + 7 + 1 =$ 26 |
| $7 + 4 + 1 =$ 21 | $9 + 1 =$ 22 | $5 + 3 + 9 =$ 23 | $5 + 2 =$ 24 | $2 + 1 + 5 =$ 25 |
| $5 + 2 + 6 + 5 =$ 20 | $3 + 4 =$ 19 | $1 + 9 + 6 =$ 18 | $4 + 7 + 4 + 1 =$ 17 | $2 + 6 =$ 16 |
| $8 + 7 + 2 =$ 11 | $4 + 4 + 9 =$ 12 | $5 + 6 =$ 13 | $4 + 3 + 6 =$ 14 | $3 + 3 + 3 =$ 15 |
| $7 + 2 + 1 + 7 =$ 10 | $1 + 4 + 5 =$ 9 | $1 + 1 =$ 8 | $6 + 3 + 6 + 3 =$ 7 | $8 + 5 =$ 6 |
| Start 1 | $4 + 3 =$ 2 | $7 + 0 + 1 =$ 3 | $3 + 4 + 6 =$ 4 | $5 + 4 + 2 + 1 =$ 5 |

4 Addition

Review

Use a dice.

I started on 6, I rolled a 5, I landed on _____.

My first roll was a 5, I then threw a 4. In total I had moved on _____ spaces.

I started on 3, I rolled a 7 and landed on _____.

What two numbers do you need to roll to make 10?

$$1 + \underline{\hspace{2cm}} = 10$$

$$4 + \underline{\hspace{2cm}} = 10$$

Find some more.

5 Subtraction and Difference

Engage



How many are left?

10 in the bed

There were 10 in the bed,
And the little one said,
'Roll over, roll over'.
So they all rolled over,
And I fell out,

There were 9 in the bed,
And the little one said,
'Roll over, roll over'.
So they all rolled over,
And I fell out.

There were 8 in the bed ...

5 green and speckled frogs



5 green and speckled frogs,
Sat on a speckled log,
Eating the most delicious worms.
YUM, YUM.

One jumped into the pool,
Where it was nice and cool.

Then there were 4 green
speckled frogs.

GLUG, GLUG.

4 green and speckled frogs ...

Monkeys on the bed

5 little monkeys jumping on the bed,
I fell off and bumped his head.

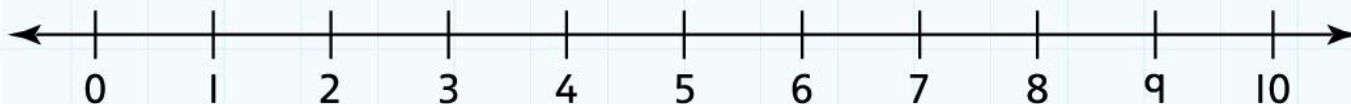
Mummy called the doctor and the doctor said,
'No more monkeys jumping on the bed'.

4 little monkeys jumping on the bed ...



5A Taking away

Discover



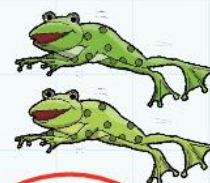
Count back in 2s.

Put a circle round the number you land on.

The first one is done for you.



2 less than 10 is 8.



2 less than 8 is _____.

2 less than 6 is _____.

2 less than 4 is _____.

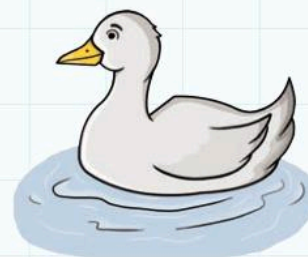
2 less than 2 is _____.

5 little ducks went out to play



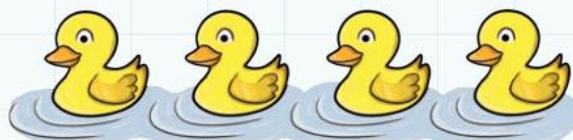
into the pond and far away.

'Quack,' said the mummy duck, 'quack, come back.'



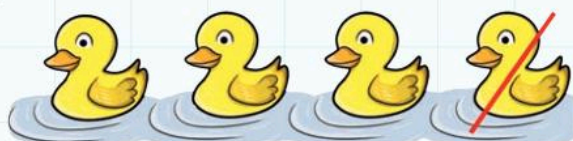
But only 4 little ducks came back.

$$5 - 1 = \underline{\hspace{2cm}}$$



Write the answers and draw the pictures.

$$4 - 1 = \underline{\hspace{2cm}}$$



$$3 - 1 = \underline{\hspace{2cm}}$$

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

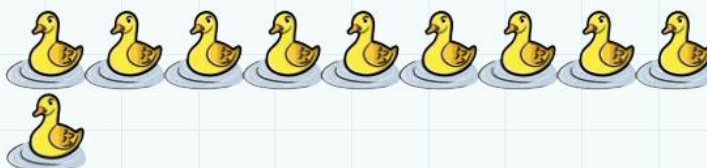
$$1 - 1 = \underline{\hspace{2cm}}$$

5A Taking away

Explore

Complete and match the answer with the question.

$7 - 3 =$



$12 - 5 =$



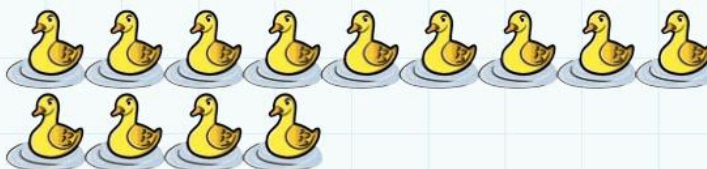
$18 - 9 =$



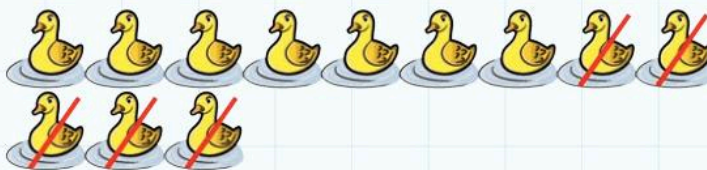
$10 - \underline{\quad} = 4$



$13 - \underline{\quad} = 3$



$2 - \underline{\quad} = 0$



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

Use your number track to help you.

2 less than 3 is _____.

2 less than 10 is _____.

2 less than 5 is _____.

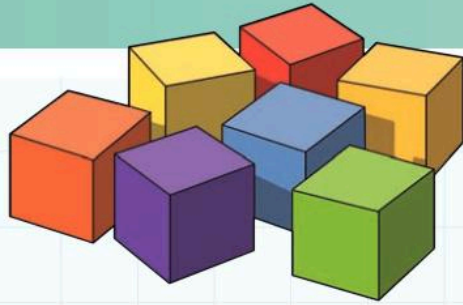
2 less than 6 is _____.

2 less than 9 is _____.

2 less than 7 is _____.

2 less than 8 is _____.

2 less than 4 is _____.

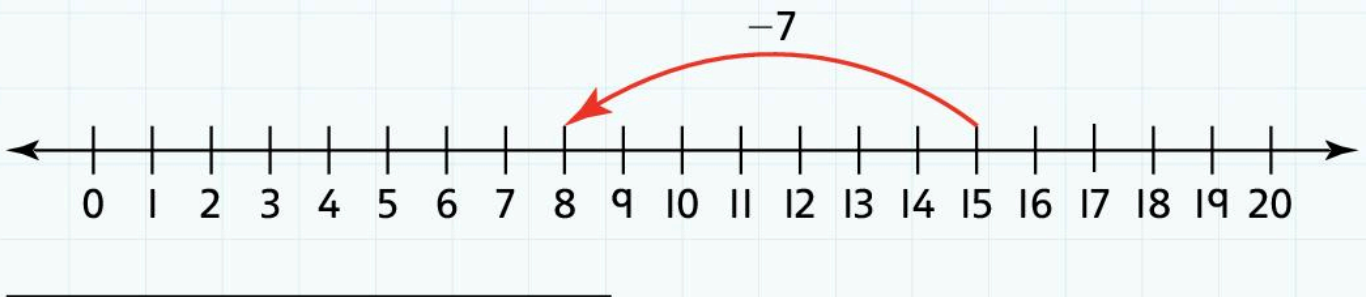
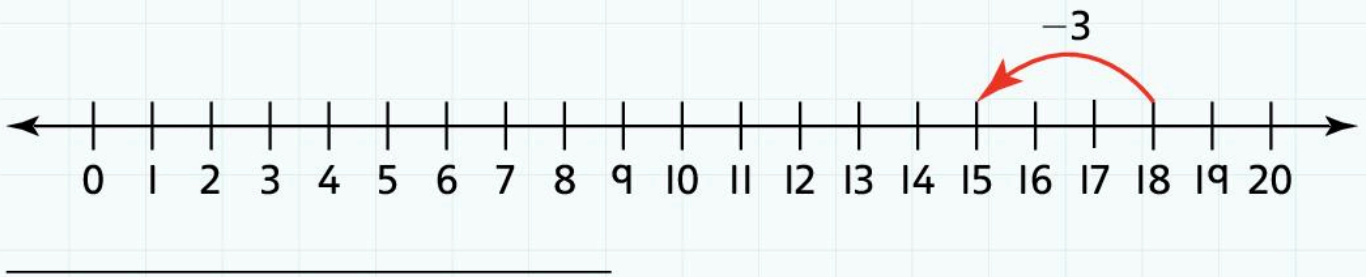
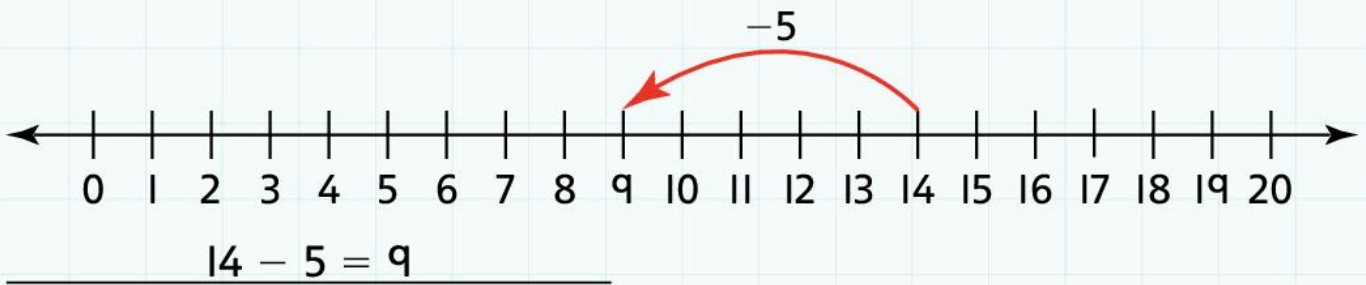


Use cubes

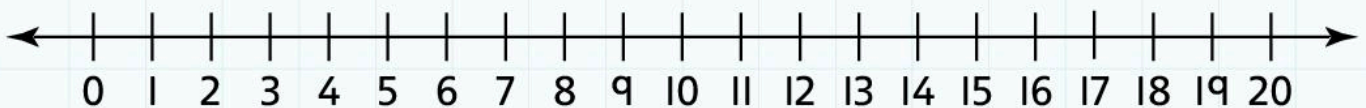
or a number line to help you.



Write the number sentence shown on the number line.



Draw two subtractions on the number line for your friend to solve.



5B Counting back

Discover

Jumping frogs

You will need:

- a counter or cube
- a dice.

Line 1



Start on 17.

I started on _____.

Jump back 5.

I jumped back _____.

$$17 - 5 =$$

I landed on _____.

Line 2



Start on 9.

I started on _____.

Jump back 5.

I jumped back _____.

$$9 - 5 =$$

I landed on _____.

Line 3



Start on 13.

I started on _____.

Jump back 6.

I jumped back _____.

$$13 - 6 =$$

I landed on _____.



| | | | |
|---|---|---|---|
| 4 | 6 | 7 | 8 |
| 4 | 5 | 6 | 5 |
| 6 | 7 | 9 | 4 |
| 9 | 7 | 5 | 8 |

Use the number line. Always start with your counter on 10.

Take turns to throw the dice.

Count back on the number line.

Cover the number on your grid.

Write the different ways you found the numbers.

$10 - \underline{\quad} = \underline{\quad}$

$10 - \underline{\quad} = \underline{\quad}$

$10 - \underline{\quad} = \underline{\quad}$

$10 - \underline{\quad} = \underline{\quad}$

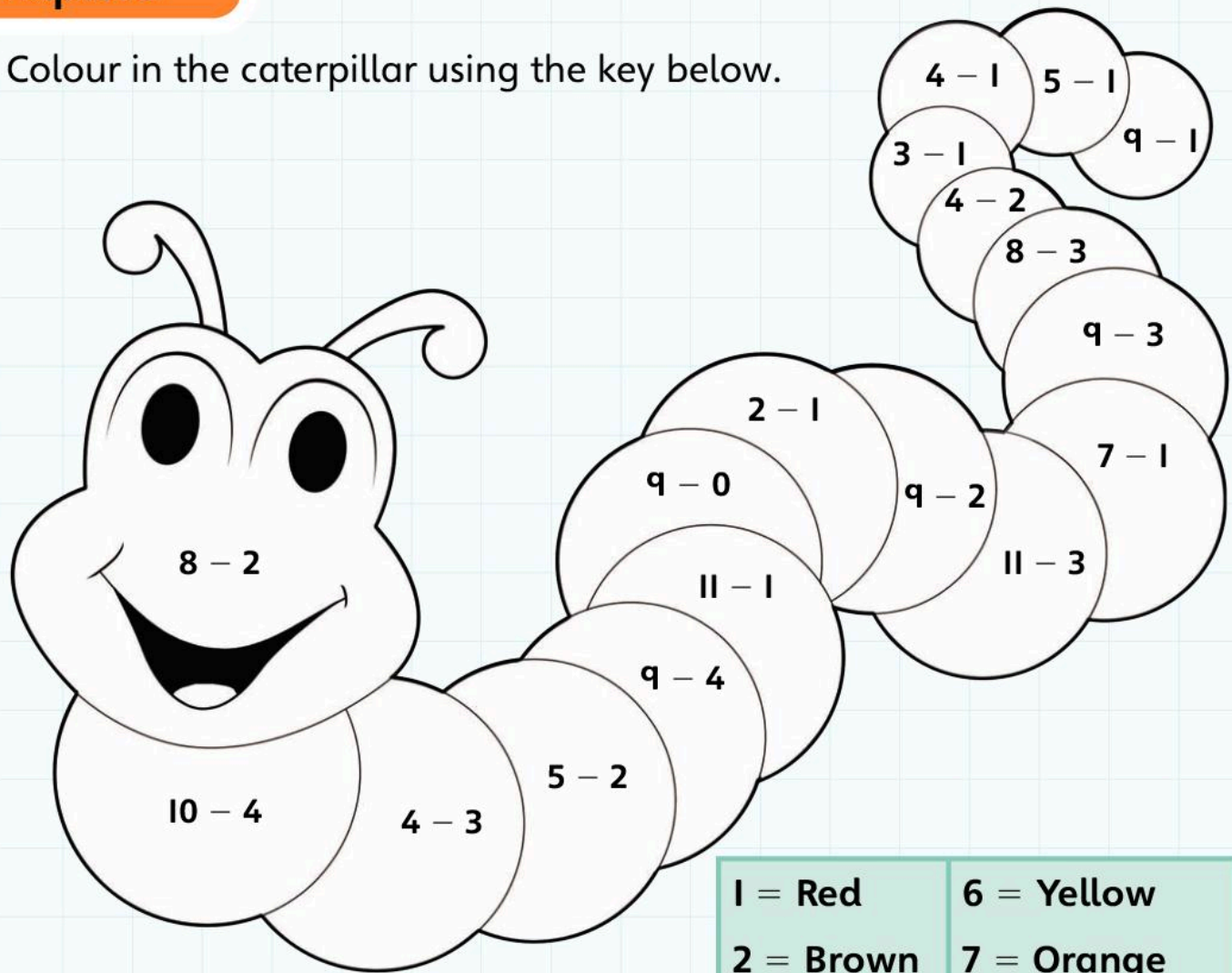
$10 - \underline{\quad} = \underline{\quad}$

$10 - \underline{\quad} = \underline{\quad}$

5B Counting back

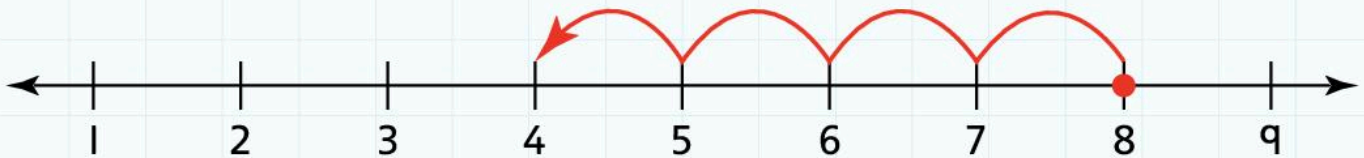
Explore

Colour in the caterpillar using the key below.



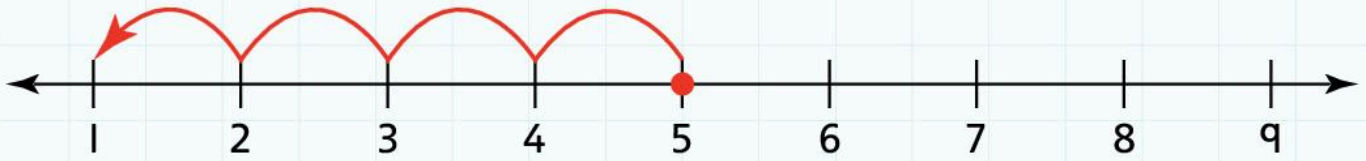
| | |
|------------|----------------|
| 1 = Red | 6 = Yellow |
| 2 = Brown | 7 = Orange |
| 3 = Blue | 8 = Grey |
| 4 = Green | 9 = Light blue |
| 5 = Purple | 10 = White |

Circle the correct answer.



What number sentence does this number line show?

- a) $4 + 4 = 8$ b) $9 - 5 = 4$ c) $8 - 4 = 4$ d) $6 + 2 = 8$



What number sentence does this number line show?

- a) $5 - 1 = 4$ b) $6 - 1 = 5$ c) $1 + 4 = 5$ d) $5 - 4 = 1$



What number sentence does this number line show?

- a) $2 + 1 = 3$ b) $3 - 2 = 1$ c) $1 + 2 = 3$ d) $3 - 1 = 2$

Draw some number lines to show:

$7 - 2 = 5$



$8 - 3 - 2 = 3$



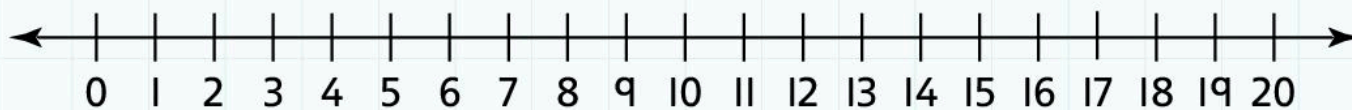
$6 - 2 + 2 =$



5C Finding the difference

Discover

A difference of 1, 2 or 3



Find two numbers that have a difference of 1.

The difference between _____ and _____ is 1.

And another.

The difference between _____ and _____ is 1.

Find two numbers that have a difference of 2.

The difference between _____ and _____ is 2.

And another.

The difference between _____ and _____ is 2.

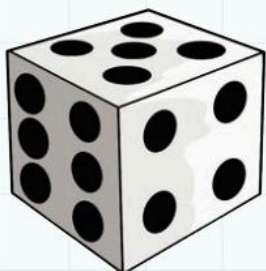
Find two numbers that have a difference of 3.

The difference between _____ and _____ is 3.

And another.

The difference between _____ and _____ is 3.

Use a dice.



Throw the dice 2 times.

Find the difference.

I threw 6 and 3.

The difference between 6 and 3 is _____.

I threw _____ and _____.

The difference between _____ and _____ is _____.

I threw _____ and _____.

The difference between _____ and _____ is _____.

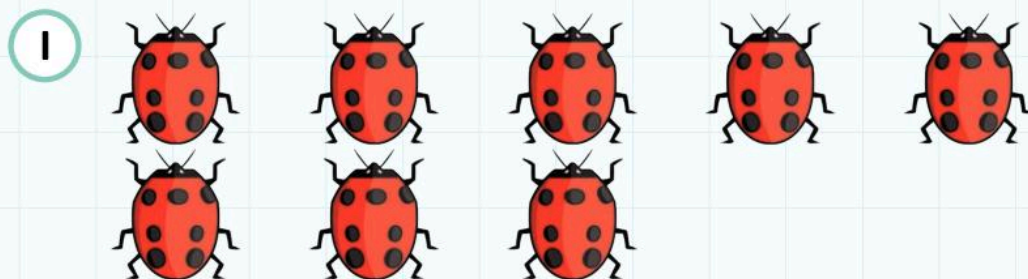
I threw _____ and _____.

The difference between _____ and _____ is _____.

5C Finding the difference

Explore

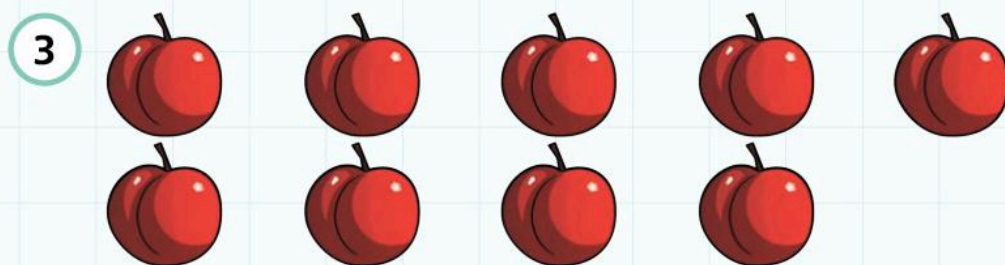
Write to show the difference between these.



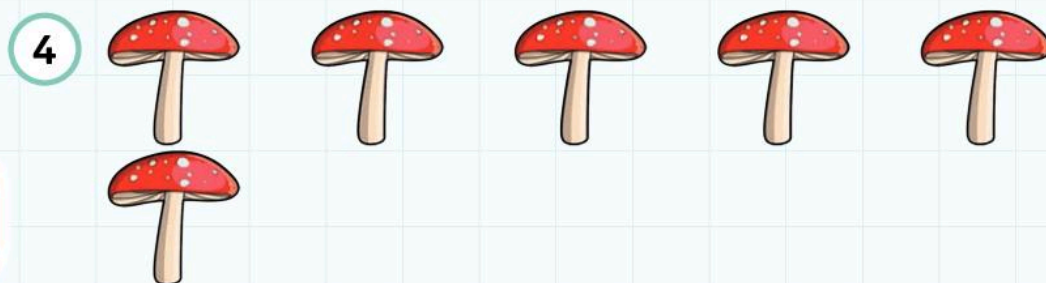
The difference between 5 and 3 is _____. $5 - \square = \square$



The difference between 5 and 0 is _____. $5 - 0 = \square$

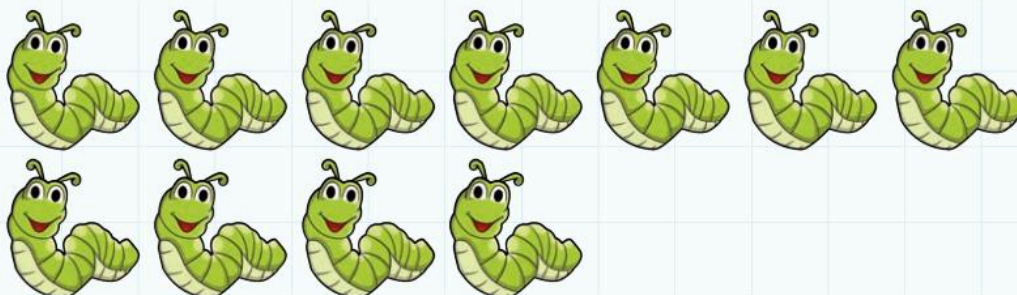


The difference between 5 and 4 is _____. $\square - \square = \square$



The difference between 5 and 1 is _____. $\square - \square = \square$

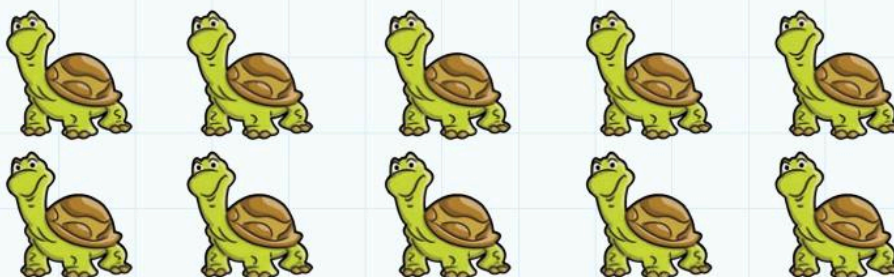
5



The difference between 7 and 4 is _____.

$$\square - \square = \square$$

6



The difference between 5 and 5 is _____.

$$\square - \square = \square$$



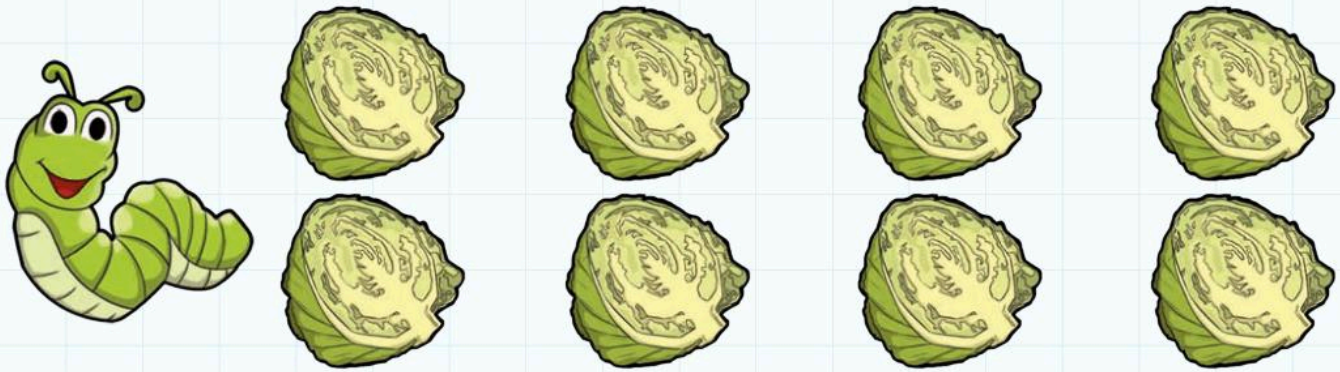
Write what this shows.

\square take away \square leaves \square

The difference between \square and \square is \square

5 Subtraction and difference

Connect



A caterpillar wants to eat 3 cabbages. How many will be left?

There are _____ cabbages left. $8 - 3 =$



A caterpillar wants to eat the twig with most leaves.
How many leaves did he eat?

He ate _____ leaves.

What is the difference between the number of leaves he ate
and the leaves he left?

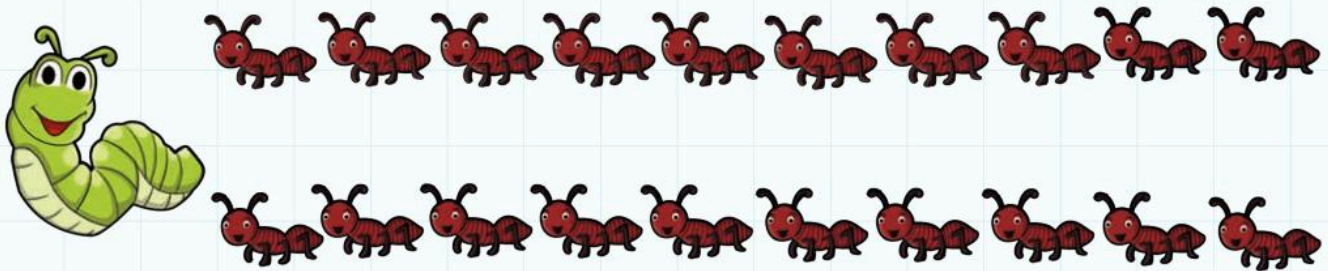
The difference between _____ and _____ is _____.



The caterpillar ate 6 berries, and then another 6 berries!

How many did he eat? He ate _____ berries.

How many are left? _____ berries are left.



There are 20 ants. 5 ran away. How many are left? _____

10 more ants ran away.

How many are left? _____

The caterpillar got too close!

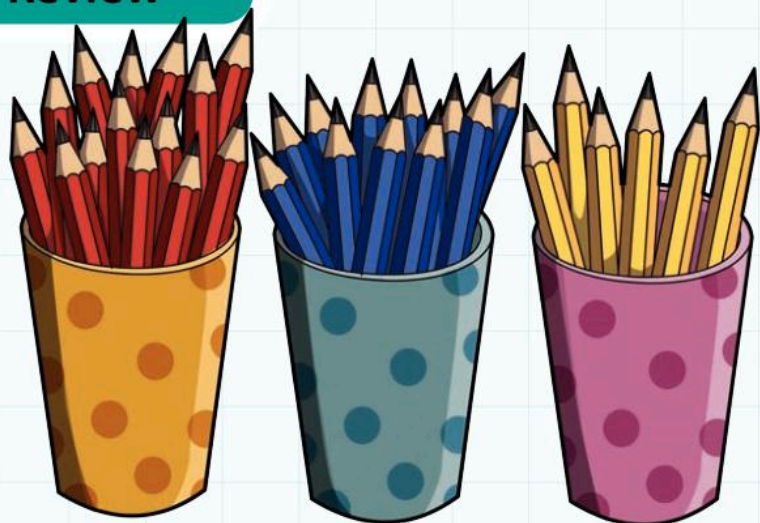
5 more ants ran away.

How many ants did the caterpillar eat?

The caterpillar ate _____ ants.

5 Subtraction and difference

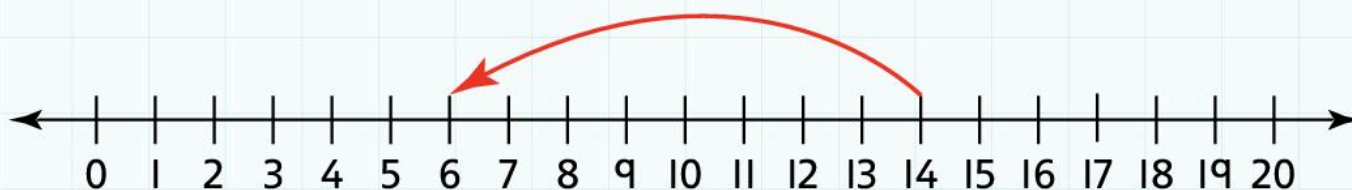
Review



Complete these sentences.

Draw an arrow on the number line to show the calculation.

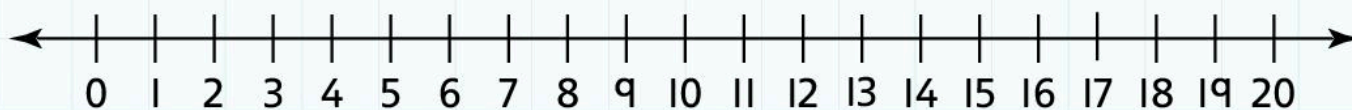
There are _____ more red pencils than yellow pencils.

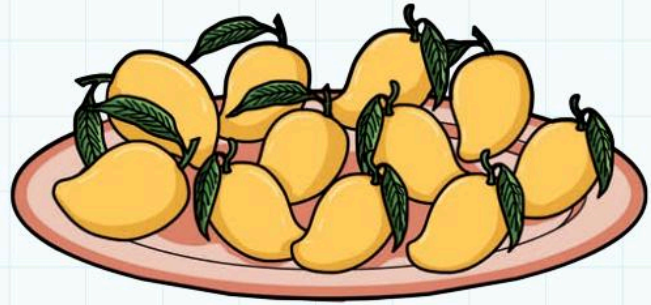
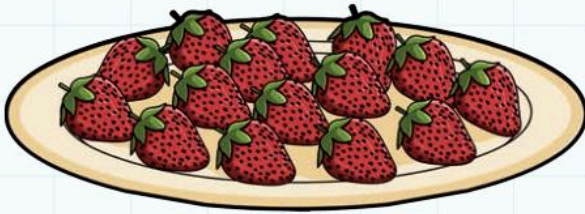
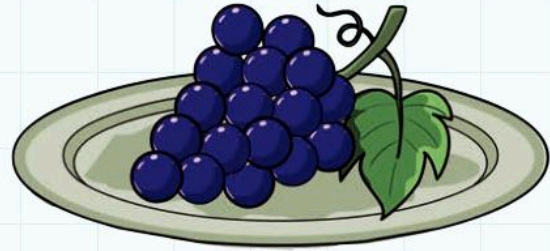
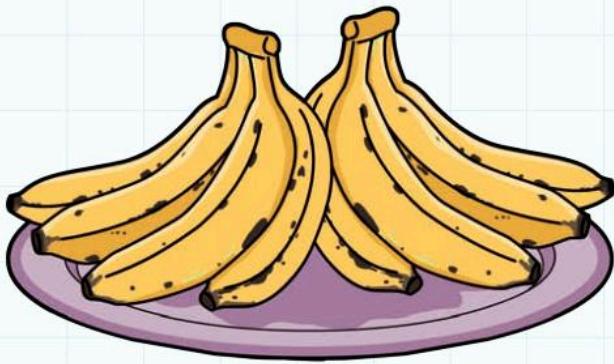


There are _____ more blue pencils than yellow pencils.



There are _____ more red pencils than blue pencils.





Write five sentences about this picture.

Draw a number line for each sentence on a sheet of paper.

Use these words in your sentences:

more

less

difference

1. _____

2. _____

3. _____

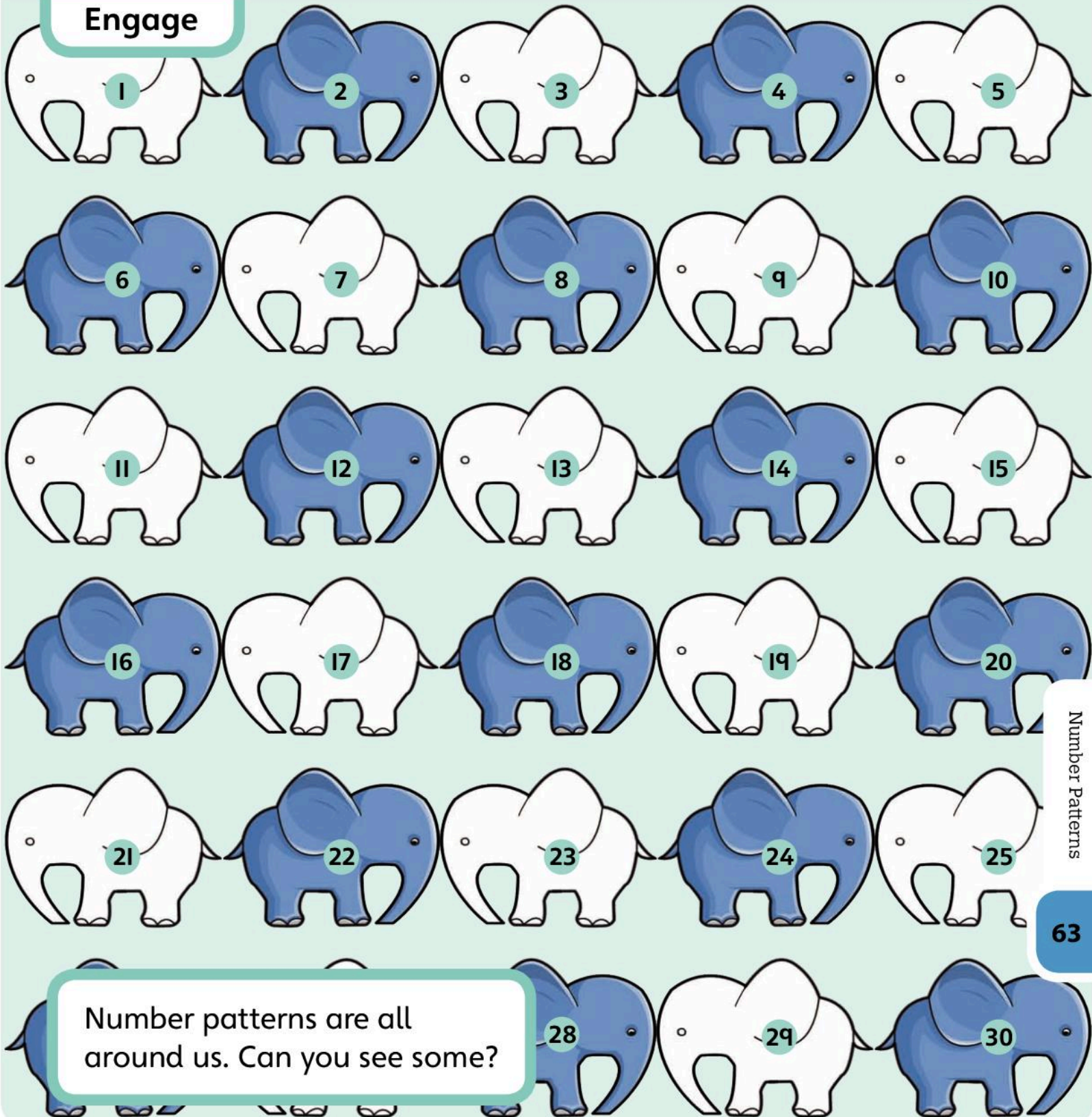
4. _____

5. _____

6

Number Patterns

Engage



Number patterns are all around us. Can you see some?

6A Even and odd

Discover

Record your scoops here.

I scooped _____ cubes.

_____ is an _____ number.

I scooped _____ cubes.

_____ is an _____ number.

I scooped _____ cubes.

_____ is an _____ number.

I scooped _____ cubes.

_____ is an _____ number.

I scooped _____ cubes.

_____ is an _____ number.

I scooped _____ cubes.

_____ is an _____ number.



How many gloves can you find?

Is that an odd number or an even number?

How do you know?

How many shoes can you find?

Is that an odd number or an even number?

How do you know?

How many socks can you find?

Is that an odd number or an even number?

How do you know?

Draw how you know.

Draw how you know.

Draw how you know.

6A Even and odd

Explore

Look at the number cards and circle the correct word **even** or **odd**.

18

even odd

21

even odd

12

even odd

10

even odd

14

even odd

11

even odd

7

even odd

2

even odd

5

even odd

Colour the path of even numbers to get out of the maze.

| | | | | | | | |
|-------|----|----|--------|----|----|----|----|
| Start | 2 | 3 | 5 | 17 | 36 | 9 | 71 |
| 4 | 6 | 8 | 10 | 12 | 41 | 54 | |
| 56 | 19 | 25 | 15 | 14 | 16 | 23 | |
| 13 | 26 | 24 | 22 | 20 | 18 | 19 | |
| 68 | 28 | 67 | 8 | 37 | 39 | 80 | |
| 5 | 30 | 32 | 34 | 36 | 17 | 21 | |
| 14 | 44 | 42 | 40 | 38 | 47 | 62 | |
| 7 | 46 | 48 | 50 | 49 | 90 | 13 | |
| | | | Finish | | | | |

6B Doubles and halves

Discover

You will need a mirror.

Put the mirror on the dotted line.

Draw the flowers that you can see in the mirror.

There were _____ flowers to begin with.

I drew _____ flowers.

I have _____ flowers altogether.

$$4 + 4 =$$



Draw 3 balls.

Put the mirror on the dotted line.

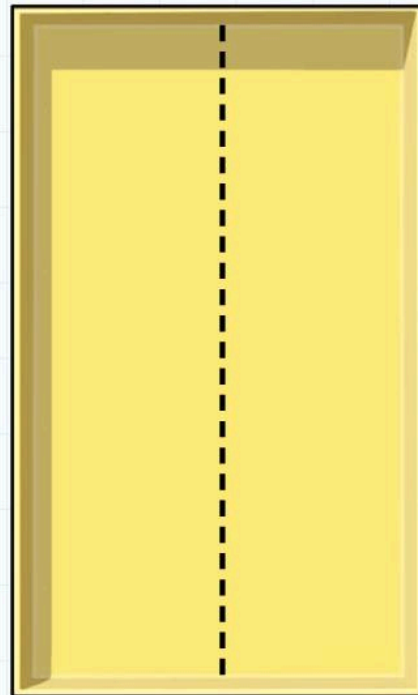
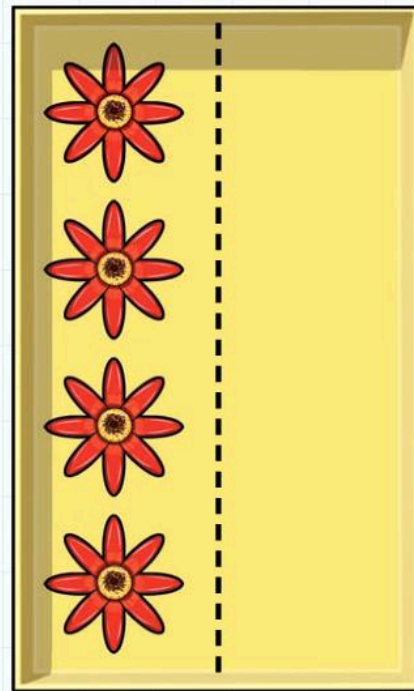
Draw what you can see.

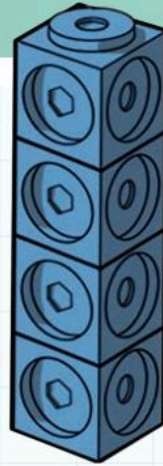
I drew _____ balls to begin with.

I drew _____ more balls.

I have _____ + _____ more.

There are _____ balls altogether.





Draw a tower using 4 cubes.

Draw a matching tower.

Double 4 is _____.

Draw a tower using 6 cubes.

Draw a matching tower.

Double 6 is _____.

Draw a tower using 12 cubes.

Draw a tower using half of 12 cubes.

Half of 12 is _____.

Draw a tower of 2 cubes.

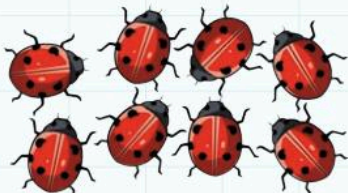
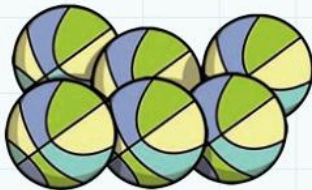
Draw a tower using half of 2 cubes.

Half of 2 is _____.

6B Doubles and halves

Explore

Draw a line to match the halves and doubles, and then write them.



Half of 2 is

Double 4 is

Half of 4 is

Half of 6 is

Double 5 is

Double 1 is

Half of 8 is

Half of 12 is

Double 2 is

Double 9 is

6C Near doubles

Discover

Complete these near double problems.

The first one is done for you.

Double 6 = 12

$$6 + 7 = 13 \qquad 12 + 1 = 13$$

Double 4 =

$$4 + 5 = \underline{\hspace{2cm}} \qquad \underline{\hspace{2cm}} + 1 = \underline{\hspace{2cm}}$$

Double 10 = 20

$$10 + 11 = \underline{\hspace{2cm}} \qquad \underline{\hspace{2cm}} + 1 = \underline{\hspace{2cm}}$$

Try these. The first one is done for you.

Double 9 = 18

$$9 + 8 = 17 = 18 - 1$$

Double 2 =

$$2 + 1 = 4 - 1 =$$

Double 5 =

$$5 + 4 = 10 -$$

Write a near double for each of these numbers.

The first one is done for you.

11 Double 5 + 1

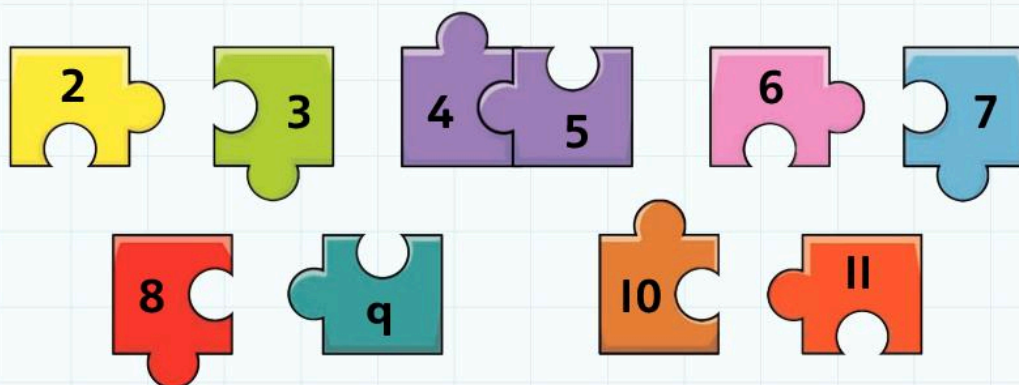
13

15

9

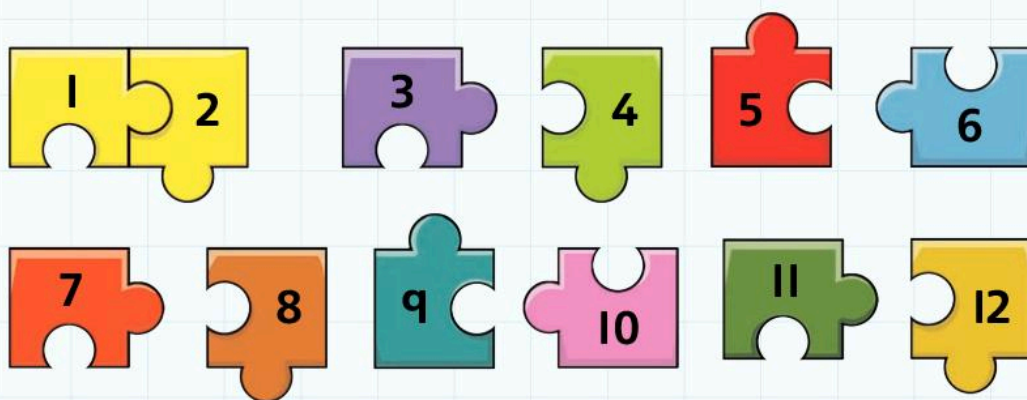
17

Join the jigsaw pieces that show a near double of +1.
One has been done for you.



Now try these.

Join the jigsaw pieces that show a near double of -1.
The first one has been done for you.



5 6 7 8 9 10 11 12 13 14 15

Choose two numbers next to each other to add together.

11 12

Write a double that would help.

11 + 11 or 12 + 12

Write the sum.

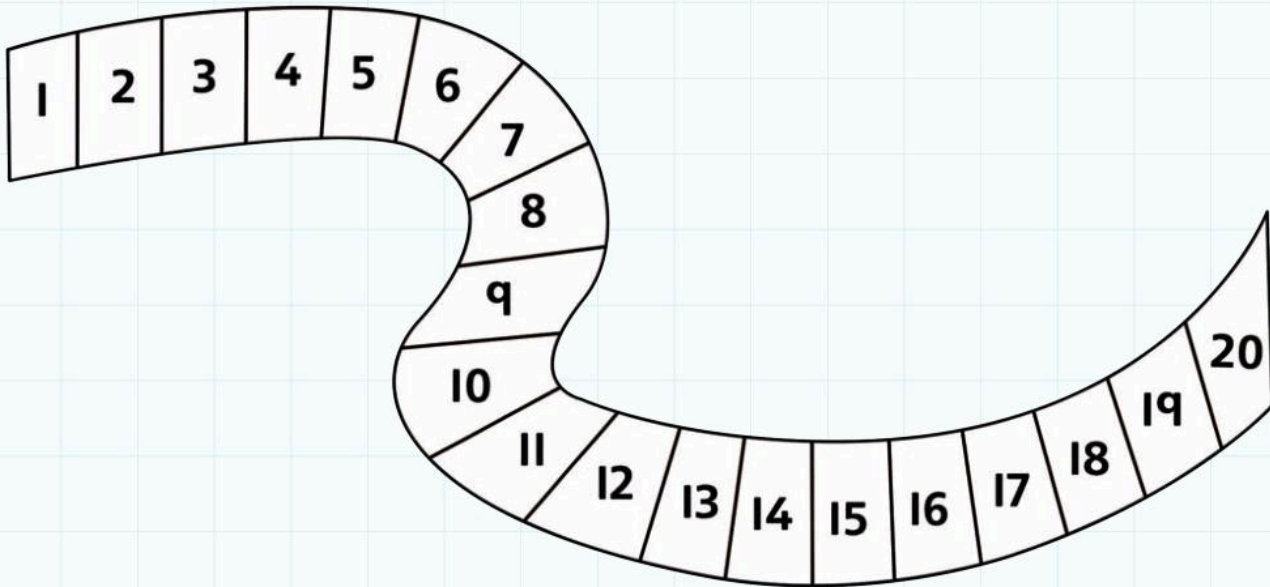
11 + 11 + 1 = 23 or 12 + 12 - 1 = 23

Do it four times.

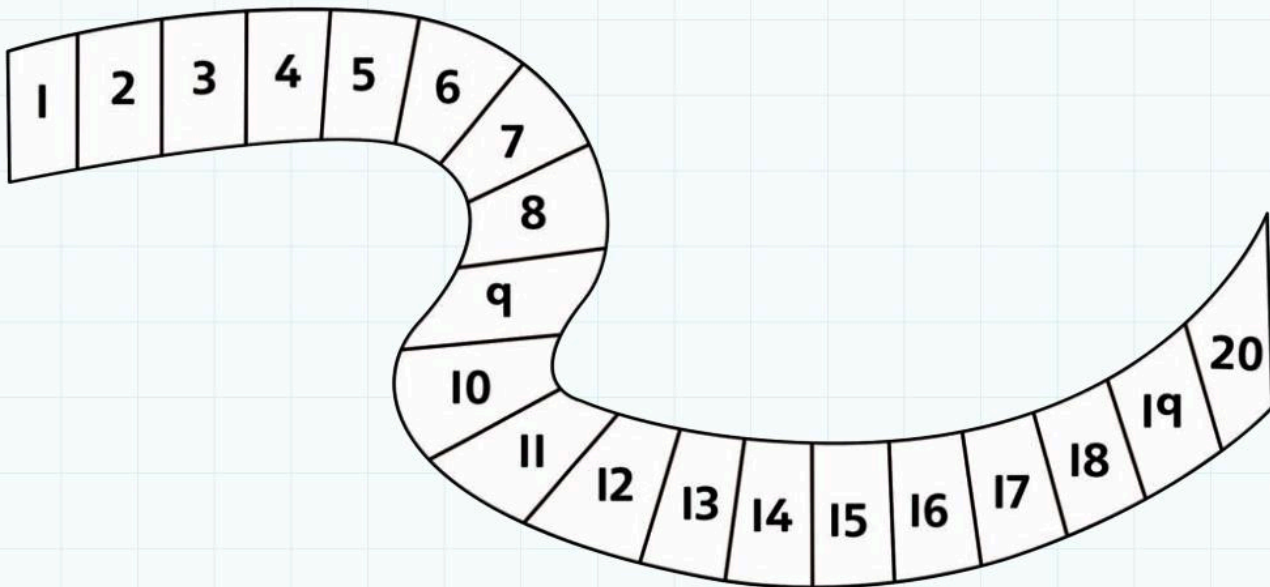
6C Near doubles

Explore

Pick a digit card. Colour the number in. Colour its double in the same colour. Repeat 5 times.



Colour the near doubles for the numbers you picked in the same colour on this number track.










Write **odd** or **even**.

All the doubles are _____ numbers.

All doubles + or - 1 are _____ numbers.

Play with your partner.

1. Take turns to roll a dice and move a counter that number of spaces.
2. Answer the question you have landed on with your partner and write your calculation.

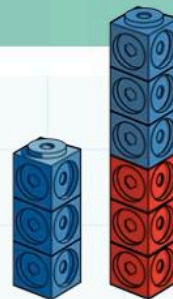
| | | | | |
|--|------------|-----------|-----------|--|
| Start  | Double 3 | $5 + 5 =$ | Double 4 | $4 + 5 =$  |
| $6 + 7 =$  | $6 + 5 =$ | Double 1 | $2 + 3 =$ | Double 2  |
| $7 + 7 =$  | $10 + 9 =$ | Double 8 | $7 + 8 =$ | $10 + 10 =$  |
| $1 + 2 =$ Finish | $3 + 4 =$ | $9 + 9 =$ | $2 + 2 =$ | $9 + 8 =$  |

6 Number patterns

Connect

I make a tower that is 3 cubes high.

My friend makes a tower that is 3 cubes high.



If we join them together they make a tower 6 cubes high.

Double 3 is 6.

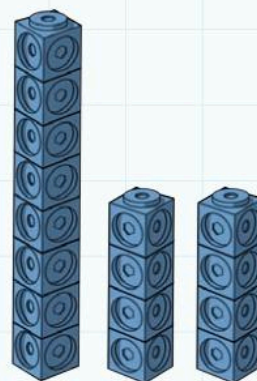
Draw 3 sets of towers to show 3 more facts you know about doubles.

My friend makes tower 8 cubes high.

I divide it into 2 towers the same height.

They are 4 cubes high.

Half of 8 is 4.

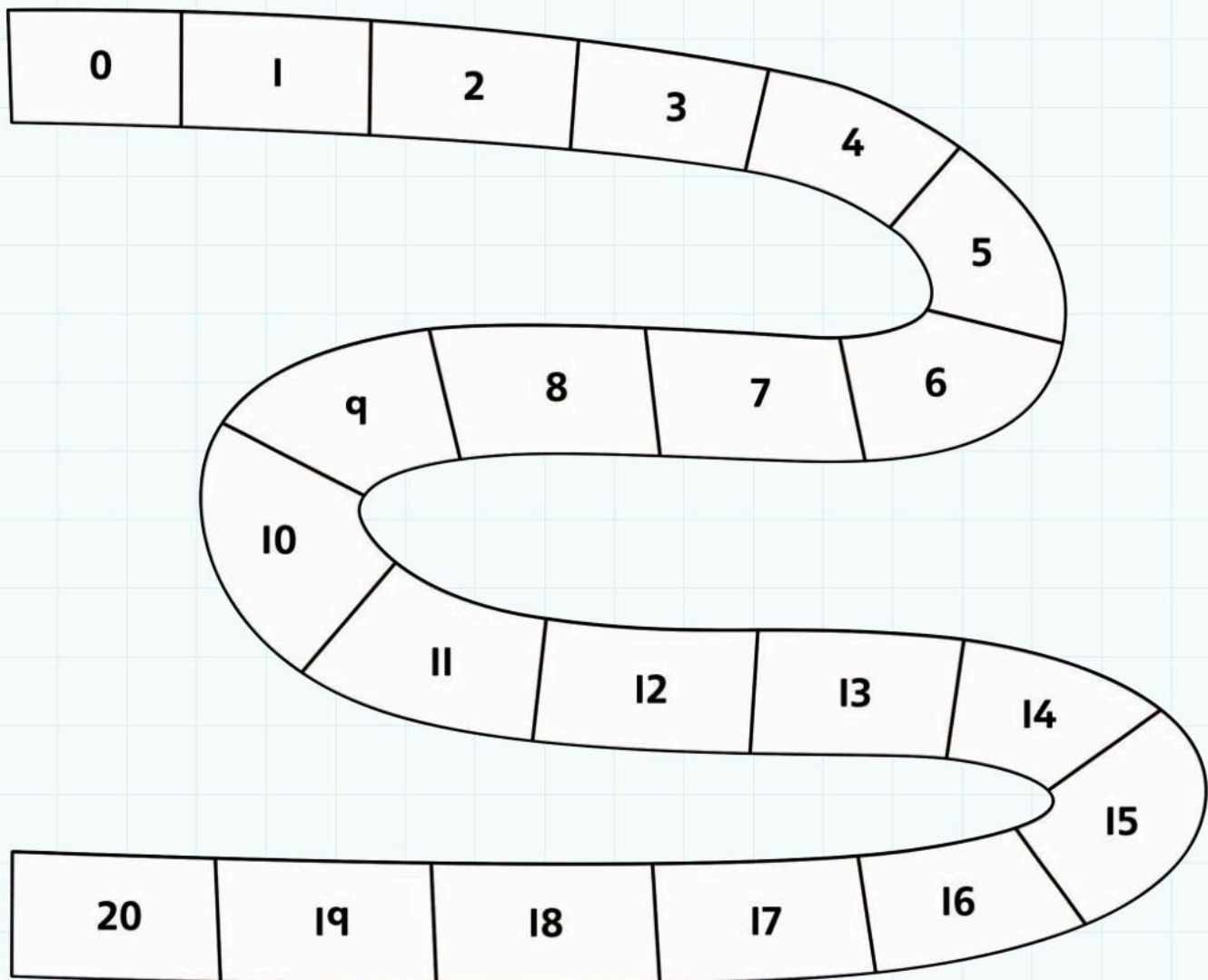


Use cubes to help you complete this table.

| Tower Height | Will it halve exactly? |
|--------------|------------------------|
| 1 | |
| 2 | |
| 3 | No |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | Yes. Half of 8 is 4 |
| 9 | |
| 10 | |

6 Number patterns

Review



Colour halves of

12 2 14 6 10 16 4 18 8 20

Complete the sentences using the words **odd**, **even**, **plus 1**, **minus 1**.

All doubles are _____ numbers.

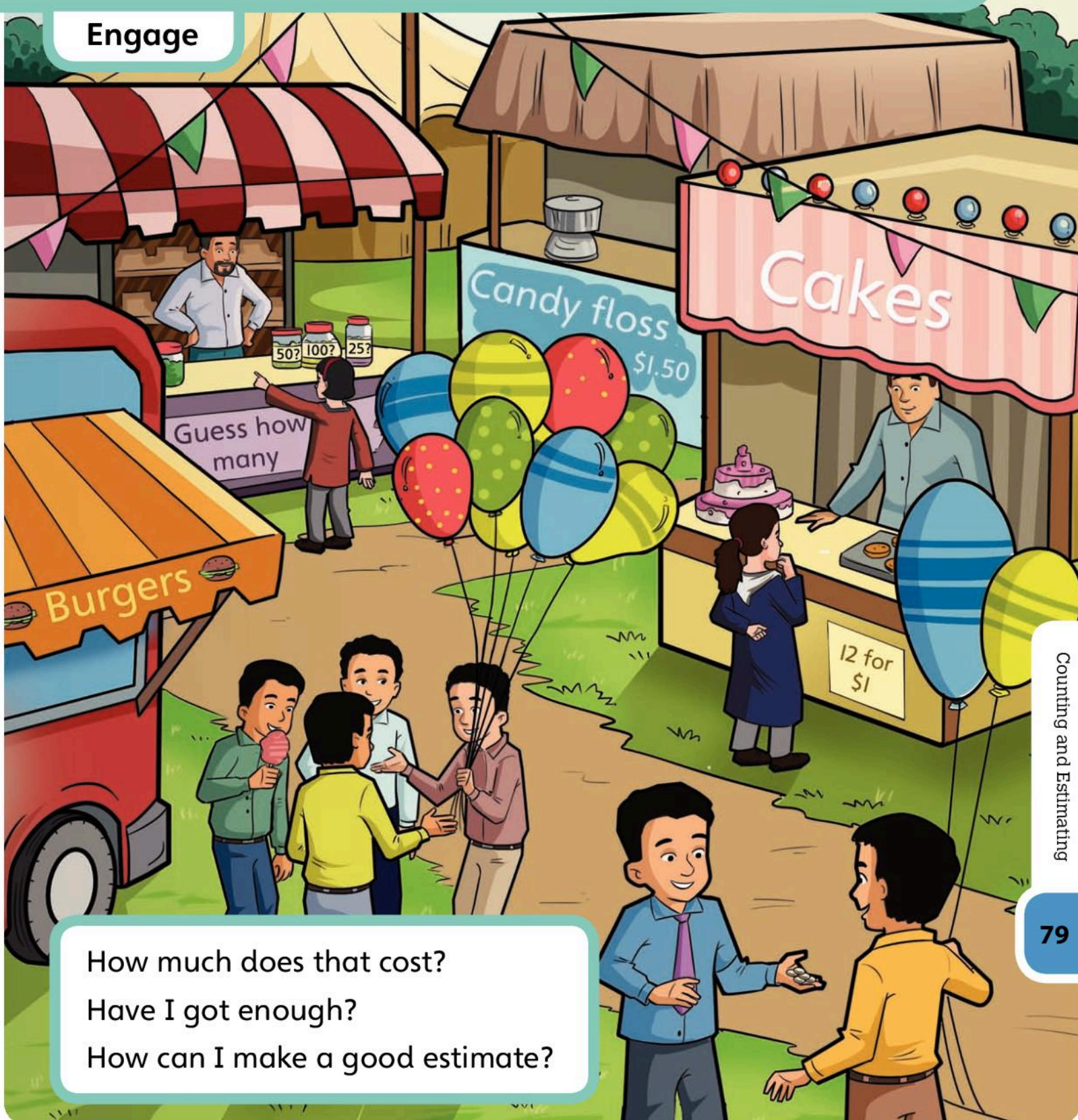
Numbers between even numbers are called _____.

17 is double 8 _____.

23 is double 12 _____.

7 Counting and Estimating

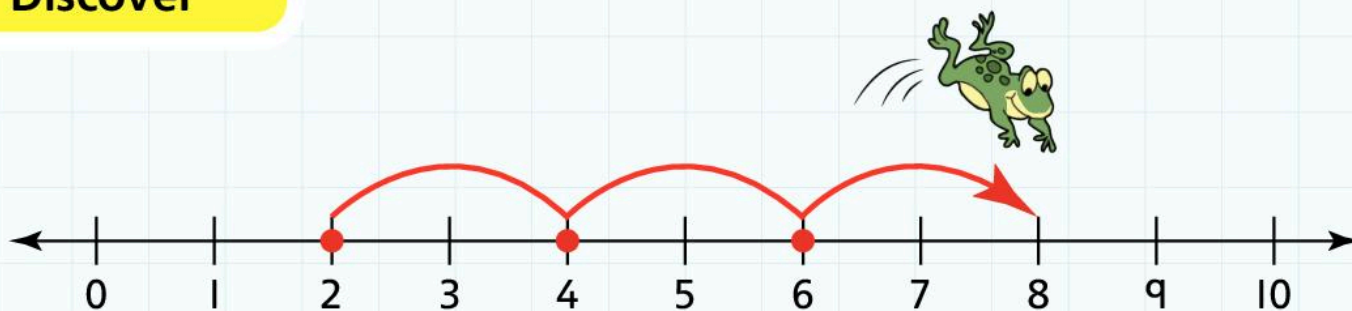
Engage



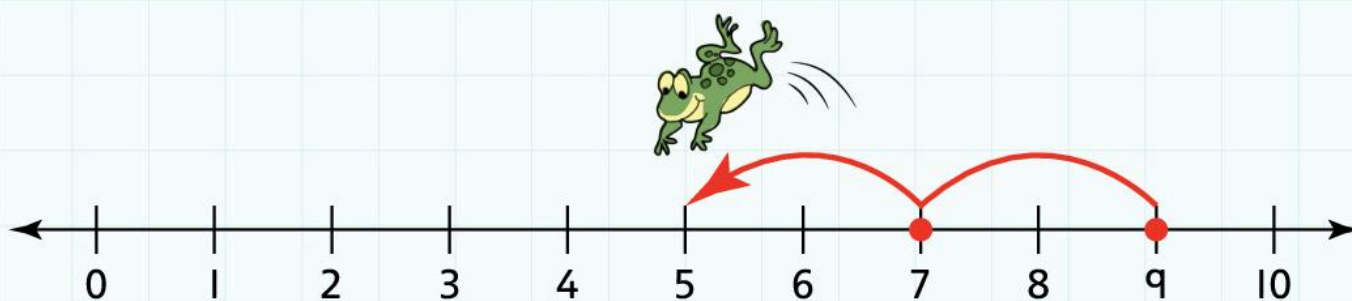
How much does that cost?
Have I got enough?
How can I make a good estimate?

7A Number lines

Discover



Frog 1 jumps in 2s from 2 to 8.



Frog 2 jumps back in 2s from 9 to 5.



I jumped from 3 to 12 in 1s and I landed on these numbers.



I jumped back from 16 to 4 in 2s and I landed on these numbers.



I jumped from 0 to 30 in 10s and I landed on these numbers.



I jumped back from 25 to 5 in 10s and I landed on these numbers.

Draw the jumps on the lines for these.

You can jump forwards  or backwards .

Write where you land.

$$7 + 10$$



I landed on _____.

$$12 - 8$$



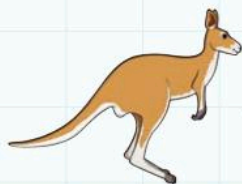
I landed on _____.

7A Number lines

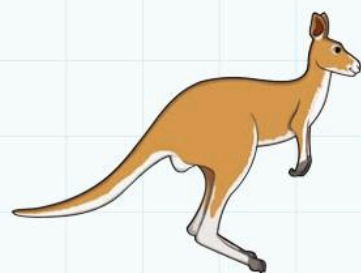
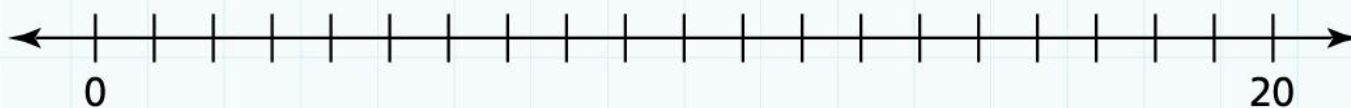
Explore

Kangaroos can jump. Some can jump further than others.

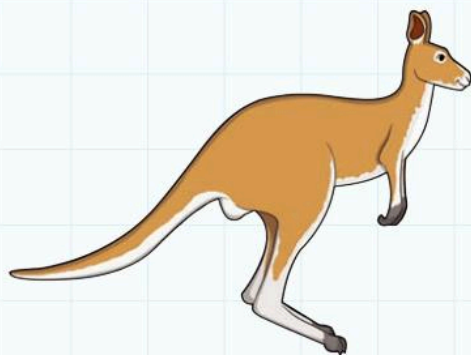
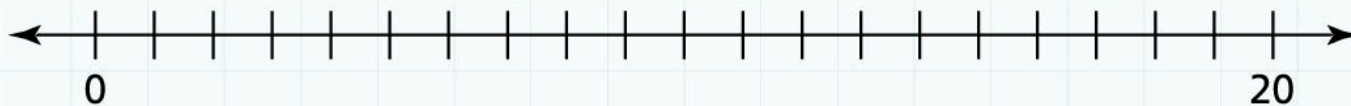
Draw the jumps for each kangaroo.



A tiny kangaroo jumps one step at a time 1, 2, 3, ...



A medium kangaroo jumps in twos 2, 4, 6, 8, ...



A big kangaroo jumps in tens 10, 20, 30, 40, ...



What two numbers do they **all** land on?

They all land on _____ and _____.

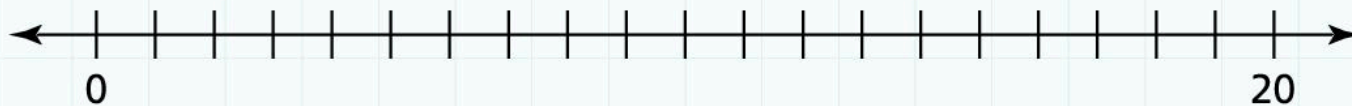
Use these number lines to find more and less.

The first one is done for you.



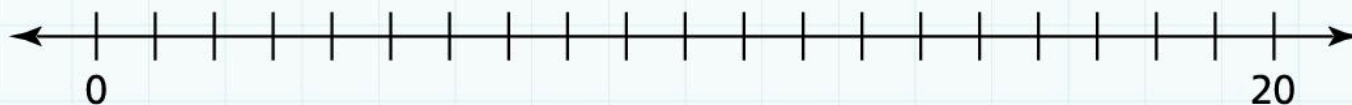
Put a mark where 10 should be.

Mark and write the numbers 2 **more** and 2 **less** than 10.



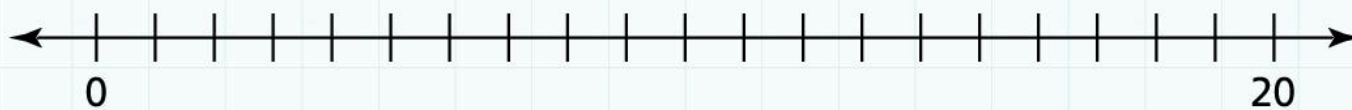
Put a mark where 18 should be.

Mark and write the number 10 less than 18.



Put a mark where 7 should be.

Mark and write the numbers 2 less than 7 and 10 more than 7.



Put a mark where 10 should be.

Mark and write the numbers 10 more and less than 10.

7B 10 More or less

Discover

Make some counting patterns of your own.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

Choose a number on the top row. Colour it.

Count on 10 and 10 again, colouring each number.

Keep counting in 10s and colouring until you reach the bottom.

When I start on _____ and count on 10 more each time

I finish on _____.

The numbers are all in the same _____.

Choose a different number in the top row and do the same again using a different colour.

Choose a number on the bottom row. Colour it using another colour. This time count back in 10s, colouring until you reach the top.

Count on in 10s from 3.
Write in the missing numbers.

Counting from 3

3, 13, _____, _____, _____

Count on in 10s from 8.
Write in the missing numbers.

Counting from 8

8, 18, _____, _____, _____

Count on in 10s from 11.
Write in the missing numbers.

Counting from 11

11, 21, _____, _____, _____

What do you notice about the start and finish number each time?

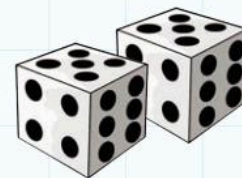
7B 10 More or less

Explore

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

Play in pairs. You need two dice and a counter each.

1. Start on 50.
2. Take turns to roll the dice.
3. Add the numbers.
4. If the number you land on is even, count on 10.
5. If the number you land on is odd, count back 10.
6. Play until one player reaches 100.



7C Missing numbers

Discover



Each number is looking for a place to go.

Find a place for each number.



$$\square + 5 = 9$$

$$\square + \square = 9$$

$$\square + \square =$$

$$7 + \square = 9$$

$$\square + 8 = 8$$

Now find a place for these numbers.

Use each number once.



$$9 - \square = 8$$

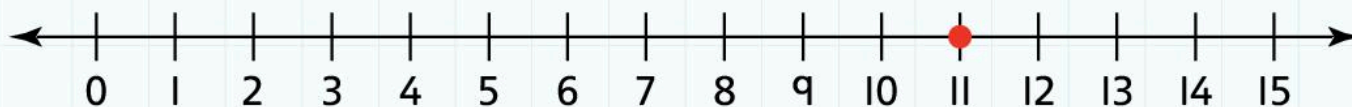
$$\square - 3 = \square$$

$$\square - \square = 5$$

$$\square - \square = 3$$

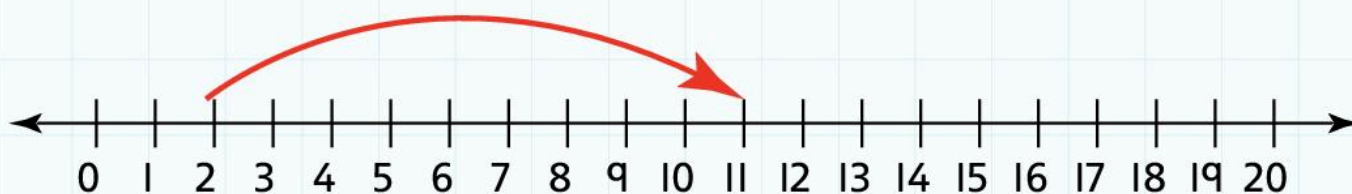
$$8 - \square = 6$$

The answer is 11. What is the question?



Make up missing number questions for your friends using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

The first one is done for you.



$$2 + 9 = 11$$

$$\square + \square = 11$$

$$\square + \square = 11$$

$$\square + \square = 11$$

$$\square + \square = 11$$

$$\square + \square = 11$$

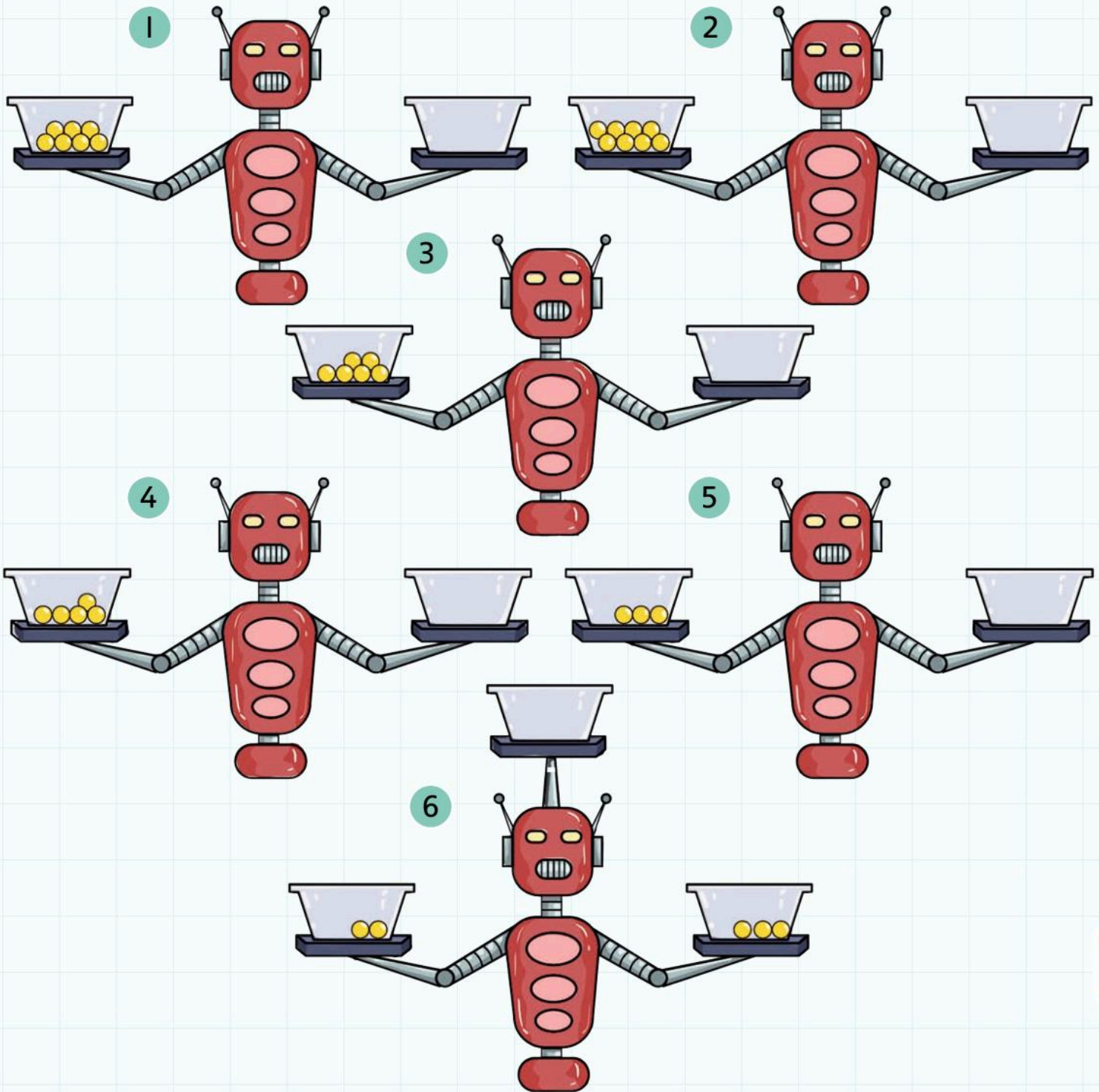
$$\square + \square = 11$$

7C Missing numbers

Explore

All the machines need 12 balls altogether.

Draw the missing balls on the machines.



Write:

$7 + \square = 12$

$5 + \square = 12$

$8 + \square = 12$

$3 + \square = 12$

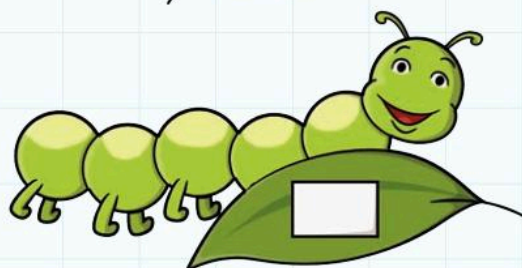
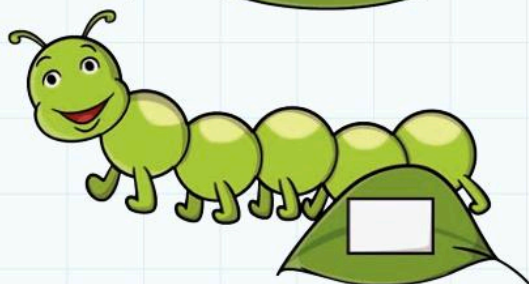
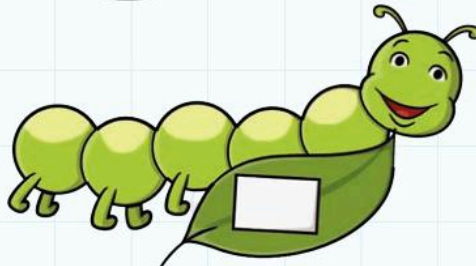
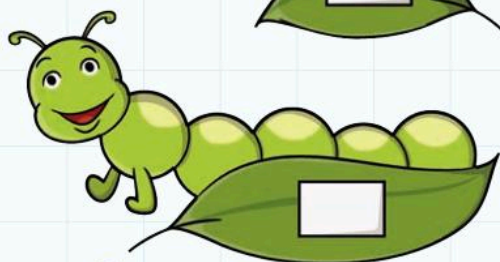
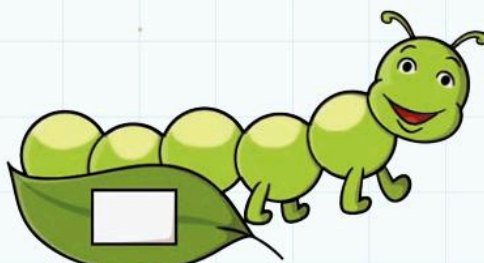
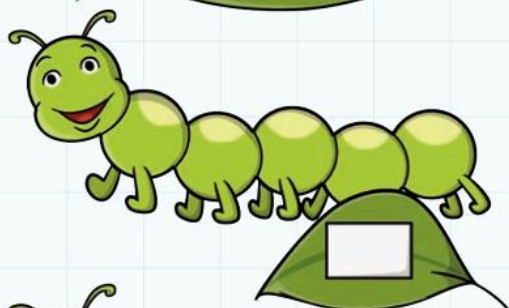
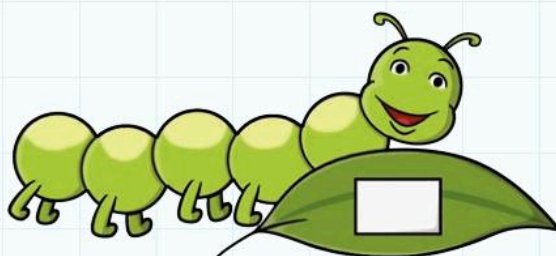
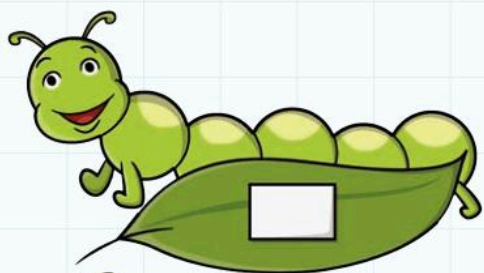
$6 + \square = 12$

$2 + \square + 3 = 12$

These caterpillars have 10 legs.

How many legs are hidden by the leaves?

Write the answer on the leaf.



7D Money

Discover

Use the coins 1¢, 5¢, 50¢ and \$1 to make five amounts less than \$1 and five amounts greater than \$1.

Write or draw the amounts.



7D Money

Explore



How can you make 20¢ with different coins? Draw or write your answers below.



For example $10¢ + 5¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ = 20¢$

7E Estimating

Discover

Record the estimates and actual amounts of your tubs here.

| Container | There are more than ... | There are less than ... |
|-----------|-------------------------|-------------------------|
| 1 | | |
| 2 | | |
| 3 | | |

Using these pictures, write two questions for estimating.

1. _____



2. _____



7E Estimating

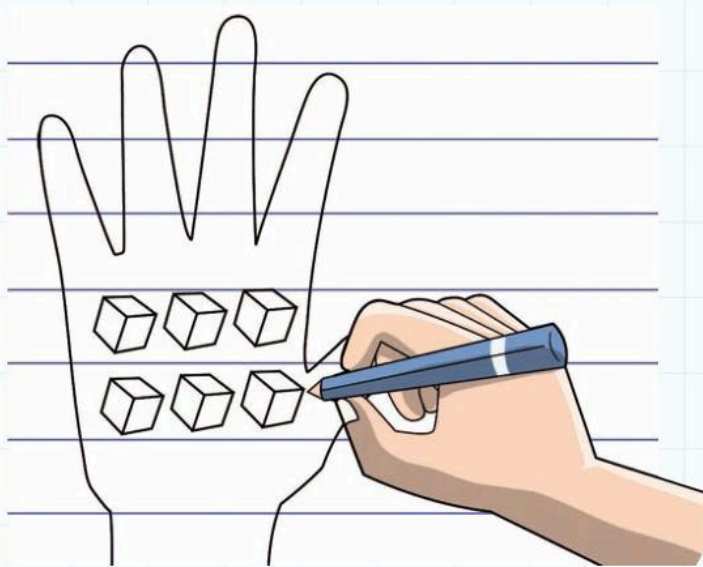
Explore

Estimate how many are in the jar.

| What's in the jar? | There are more than ... | There are less than ... |
|--------------------|-------------------------|-------------------------|
| Jar 1 | | |
| Jar 2 | | |
| Jar 3 | | |

Draw around your hand on a piece of paper.

Cover your hand with cubes.



I can hold more than _____ cubes in my hand.

I can hold less than _____ cubes in my hand.

7 Counting and estimating

Connect

Hold a classroom fair to raise money for a charity.

You can make an estimating game.



You could throw a bag on a number board.

| | | | | |
|----|----|----|----|----|
| 16 | 9 | 24 | 7 | 11 |
| 6 | 18 | 50 | 28 | 30 |
| 12 | 36 | 5 | 2 | 14 |
| 4 | 45 | 10 | 40 | 27 |

You could make a hoopla game.



How much will you charge for your game? _____

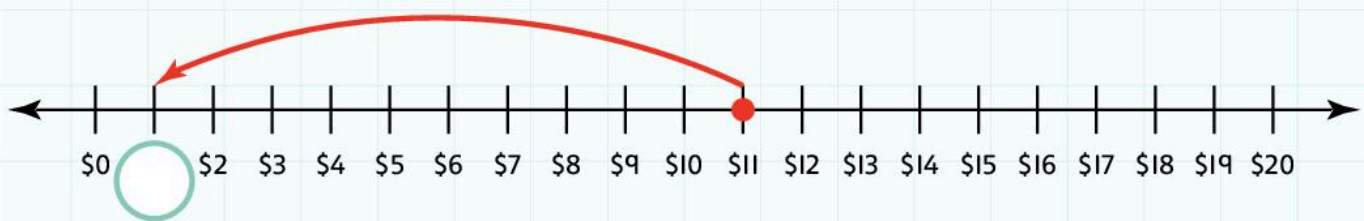
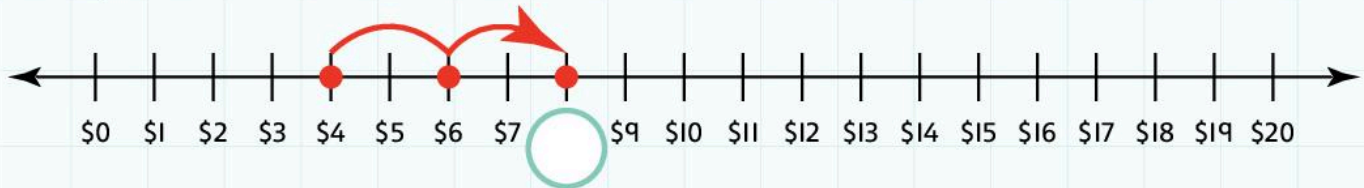
How many turns can you have? _____

How do you win? _____

7 Counting and estimating

Review

Complete the number lines.



Draw the jump to show \$10 more than \$4.



Join the numbers to their partner.

7

14

20

13

98

12

10 more than 10

10 less than 17

| | | |
|----|----|----|
| 3 | 4 | 5 |
| 13 | | 15 |
| 23 | 24 | 25 |

2 less than 15

roughly 100

| | | |
|----|----|----|
| 1 | 2 | 3 |
| 11 | | 13 |
| 21 | 22 | 23 |



8 Multiplication and Division

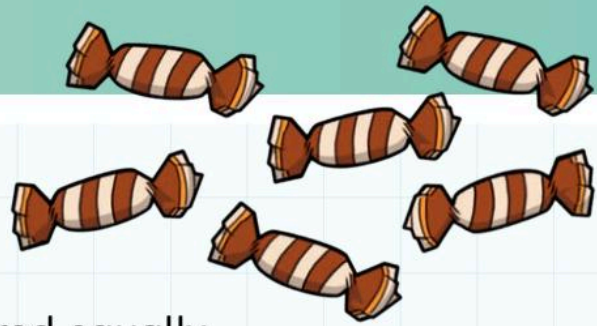
Engage



What do these patterns tell us?

8A Sharing

Discover

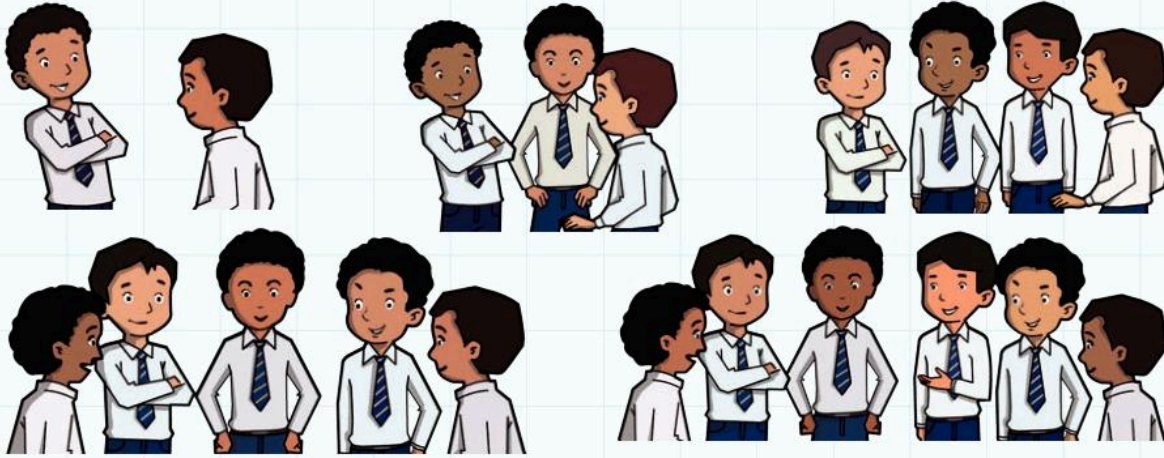


You have 6 sweets.

Find all the ways these can be shared equally.

Can you share them equally between 2, 3, 4, 5 and 6 friends?

Tick (✓) for yes or cross (x) for no.



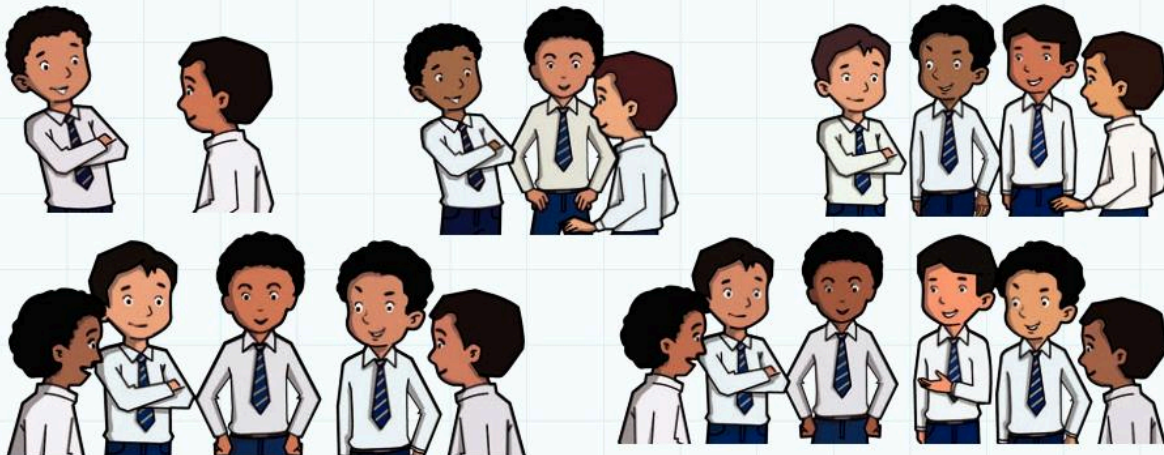
You have 12 balloons.



Find all the ways these can be shared equally.

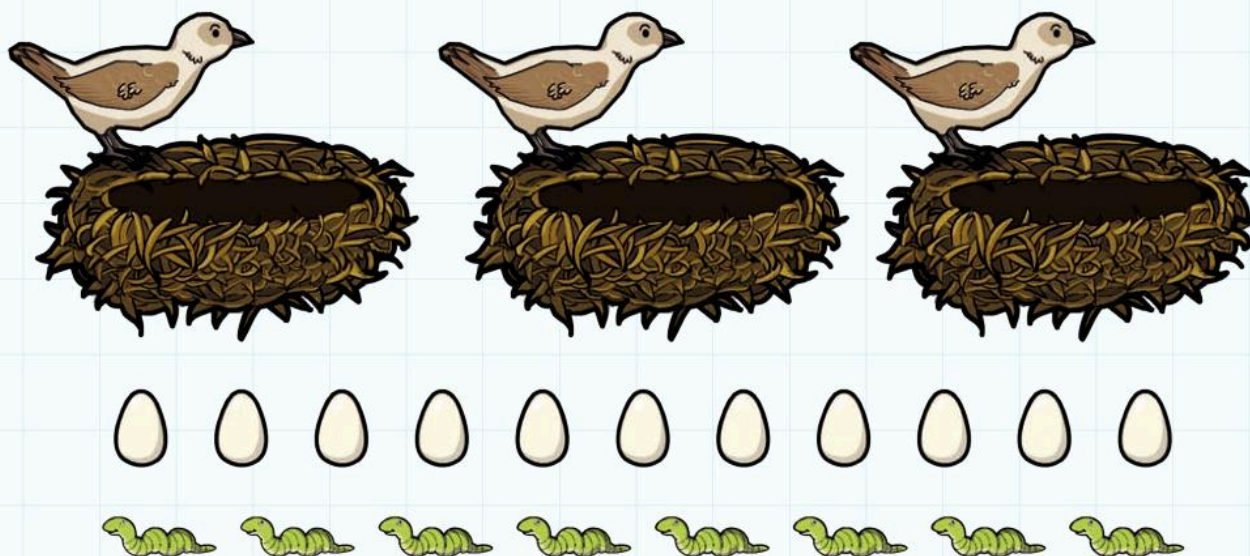
Can you share them equally between 2, 3, 4, 5 and 6 friends?

Tick (✓) for yes or cross (x) for no.



8A Sharing

Explore



Share the eggs equally between the 3 nests.

How many eggs does each nest have?

Draw the nests with the eggs.

There are _____ eggs left over.

Share the worms equally between the birds.

How many worms does each bird have?

Draw the birds with their worms.

There are _____ worms left over.

8B Grouping

Discover

Let's bake!

Make some cookies.

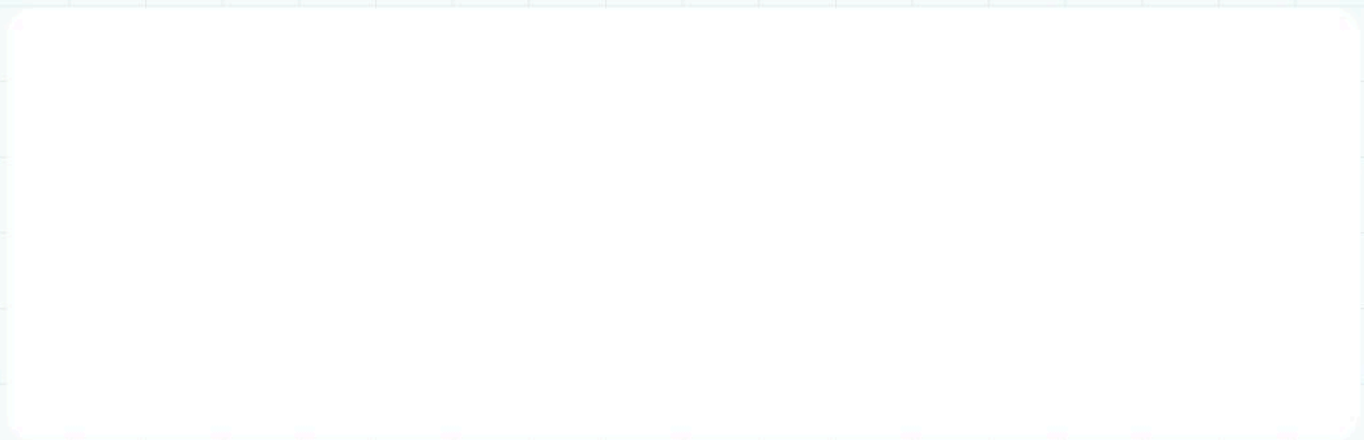
Put them in the tin to cook.



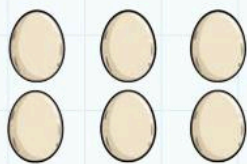
How many did you cook?

Give half to your friend.

Draw how you would share the cookies equally.



We have _____ cookies each.



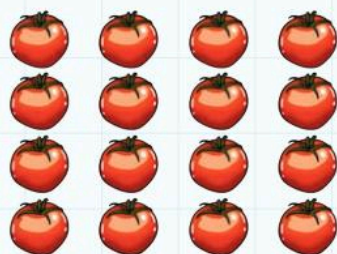
Draw how you would share the eggs equally with a friend.

We have _____ eggs each.



Draw how you would share the cartons equally with a friend.

We have _____ cartons each.



Draw how you would share the tomatoes equally with a friend.

We have _____ tomatoes each.





Draw how you would share the stamps equally with a friend.




We have _____ stamps each.





8B Grouping






Explore

Complete these tables. The first one has been done for you.

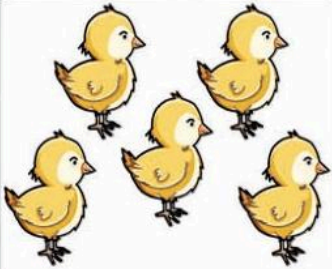
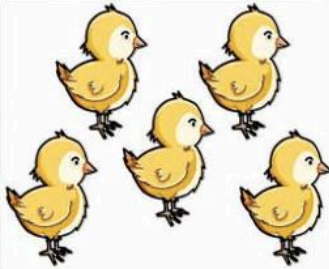
| | |
|---|---|
|  |  |
| $2 + 2 = 4$ | |
| 2 lots of 2 | |

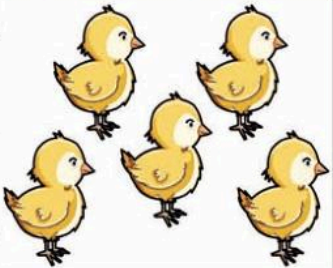
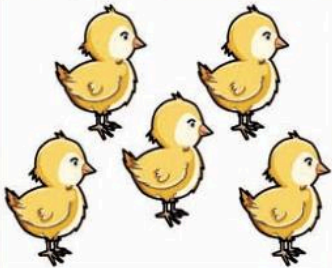
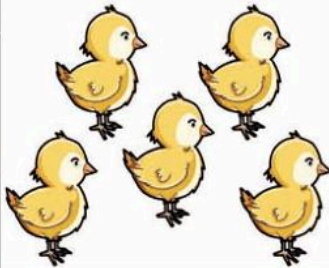
| | | |
|--|---|---|
|  |  |  |
| _____ + _____ + _____ = _____ | | |
| _____ lots of _____ | | |

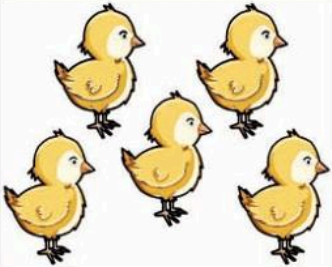
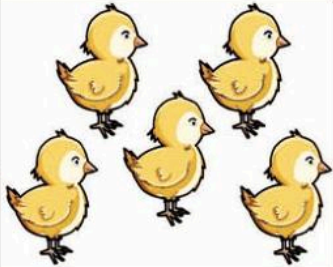
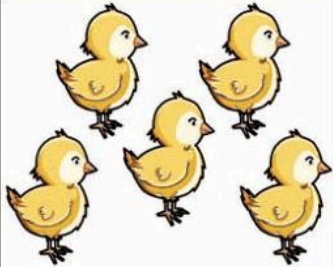
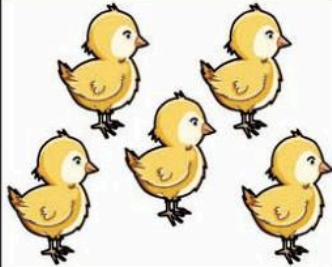
| | | | |
|--|--|---|--|
|  |  |  |  |
| _____ + _____ + _____ + _____ = _____ | | | |
| _____ lots of _____ | | | |

| | | | | |
|---|---|---|--|---|
|  |  |  |  |  |
| _____ + _____ + _____ + _____ + _____ = _____ | | | | |
| _____ lots of _____ | | | | |

Now try these.

| | |
|---|--|
|  |  |
| $5 + 5 = \underline{\quad}$ | |
| $5 \times 2 = \underline{\quad}$ | |

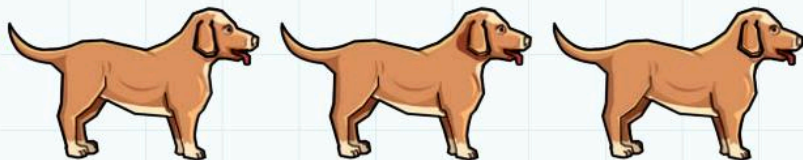
| | | |
|--|--|---|
|  |  |  |
| | | |

| | | | |
|---|---|--|---|
|  |  |  |  |
| | | | |

8 Multiplication and division

Connect

How many socks does Mrs Stitcher need?



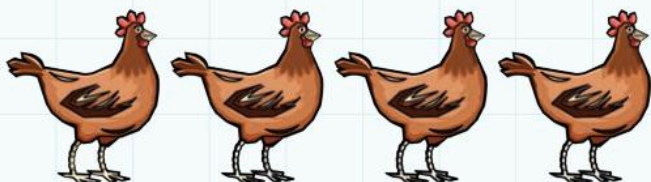
How many lots of legs are there?

Count the legs. Write how many under each dog.

Write it as a number sentence

$$4 + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

$$4 \times \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$



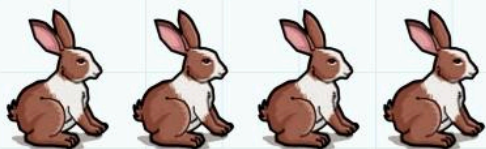
How many lots of legs are there?

Count the legs. Write how many under each chicken.

Write it as a number sentence

$$2 + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

$$2 \times \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$



How many lots of legs are there?

Count the legs. Write how many under each rabbit.

Write it as a number sentence

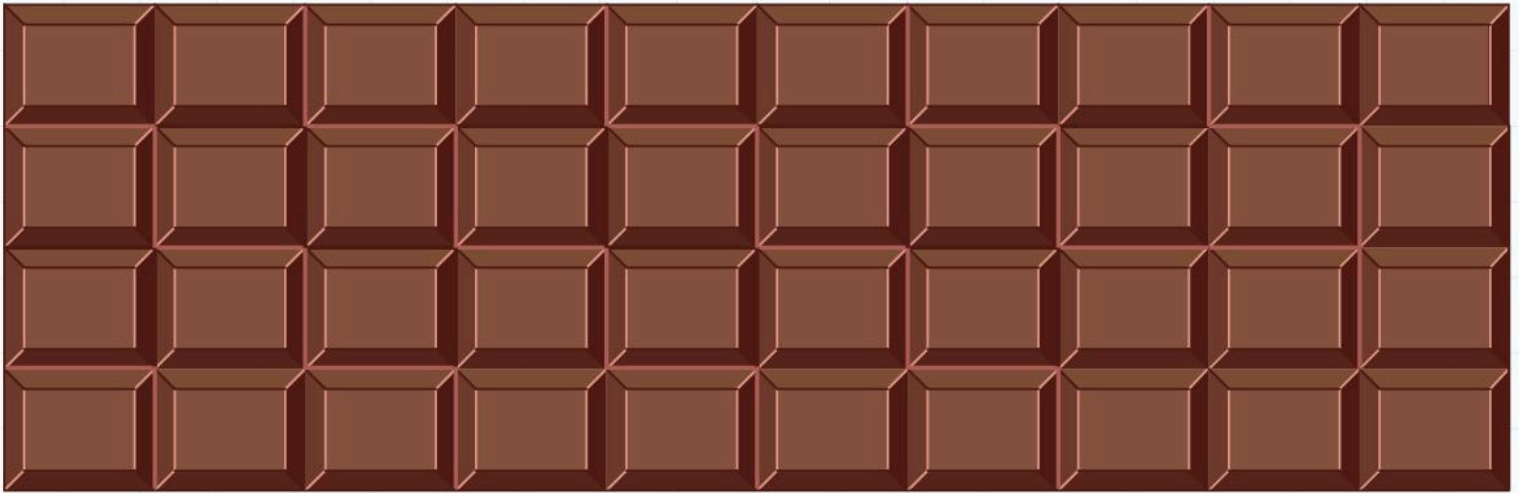
$$4 + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

$$4 \times \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

8 Multiplication and division

Review

Can you solve the chocolate problem?



The chocolate is an array of 10×4 .

There are _____ squares of chocolate.

In Class A there are 20 students.

How many squares of chocolate can each student have?

Each student can have _____ squares of chocolate.

In Class B there are 10 students.

How many squares of chocolate can each student have?

Each student can have _____ squares of chocolate.

In Class C there are 40 students.

How many squares of chocolate can each student have?

Each student can have _____ square of chocolate.

9 Measures

Engage



How do we measure different things?

9A Length and weight

Discover

You will need:

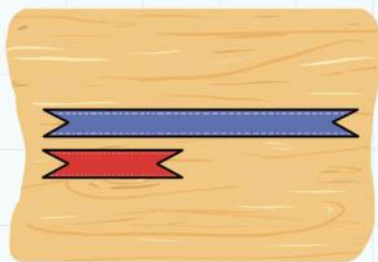
- some **lengths** of ribbon in all different colours
- some different-sized boxes.



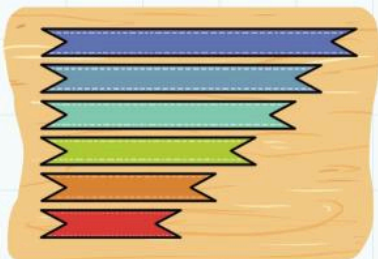
Find the **longest** ribbon.

Find the **shortest** ribbon.

Lay them on the table in front of you.



Sort the other ribbons so that you lay them from the longest to the shortest.



Which colour ribbon is the longest?

The _____ ribbon is the longest.

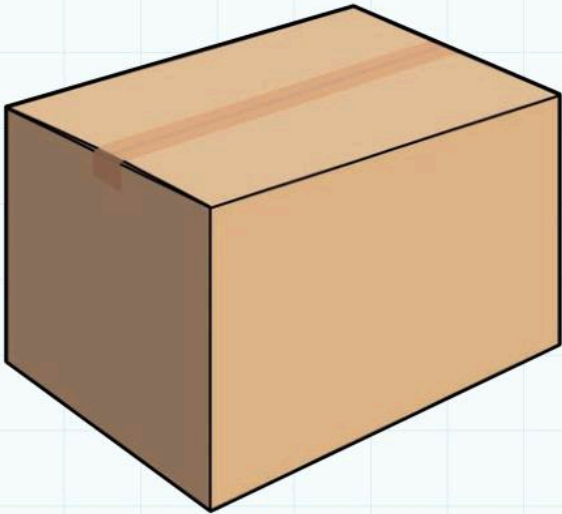
Which colour ribbon is the shortest?

The _____ ribbon is the shortest.

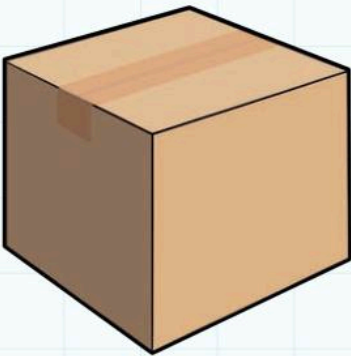
Find a different ribbon that is **longer than** the shortest one.

The _____ ribbon is longer than the shortest one.

Pick up the **largest** box.



Pick up the **smallest** box.



Which is the **heaviest**?

Box number _____ is the **heaviest**.

Box number _____ is the **lightest**.

Box number _____ is **lighter than** box number _____.

Write the numbers of the boxes in order, from lightest to heaviest.

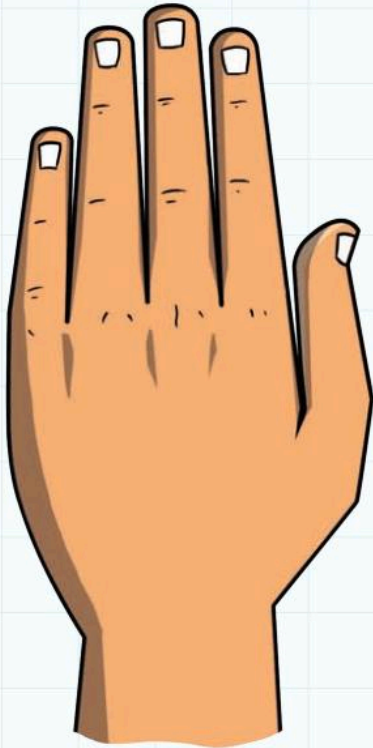
Lightest _____ → Heaviest

9A Length and weight

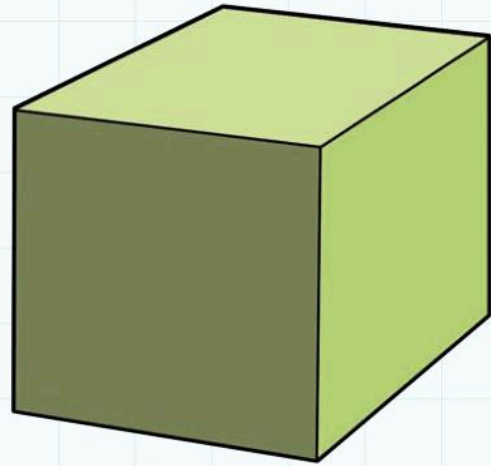
Explore

just under

just over



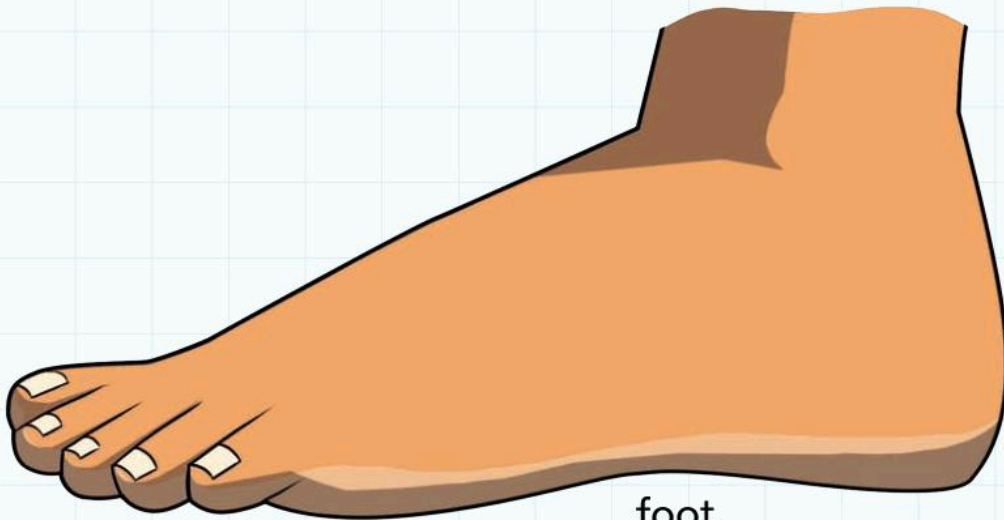
hand



cube



drinking straw



foot

Measuring things

How long is the table?

hands: _____

feet: _____

cubes: _____

straws: _____

How long is your leg?

hands: _____

feet: _____

cubes: _____

straws: _____

Weighing things

Use cubes for weighing.

My shoe weighs _____ cubes.

My book weighs _____ cubes.

5 pencils weigh _____ cubes.

2 scissors and 5 pencils
weigh _____ cubes.

A jug weighs _____ cubes.

2 shoes weigh _____ cubes.

3 books weigh _____ cubes.

20 cubes weigh _____ cubes.

Which was **longer**, the table or your leg?

The _____ was longer.

Which was **shorter**, the table or your leg?

_____ was shorter.

What **weighed** the most?

_____ weighed the most.

What weighed **less than** your shoe?

_____ weighed less than my shoe.

What weighed **more than** 5 pencils?

_____ weighed more than 5 pencils.

9B Estimating capacity

Discover

You will need:

- some **containers**
- some **cubes**.



Look at the containers on the table.

Which of these do you think would hold the **most**?

Draw them in the order that you think.



Holds least



Holds most

How could we find out?

Fill them with cubes.



Tip them out one at a time.

Count the cubes that were inside.



Make a tower from the cubes in the container.

Put the tower next to the container.



Which held the **most**?
Draw a picture of it.



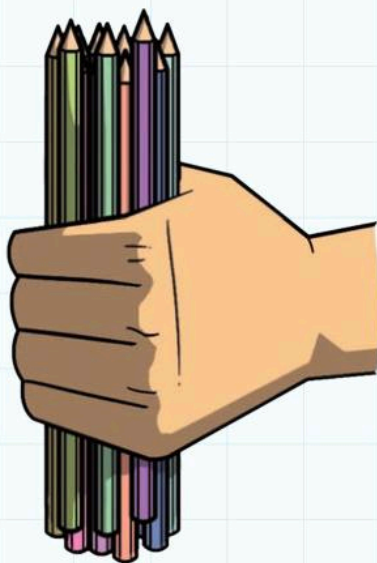
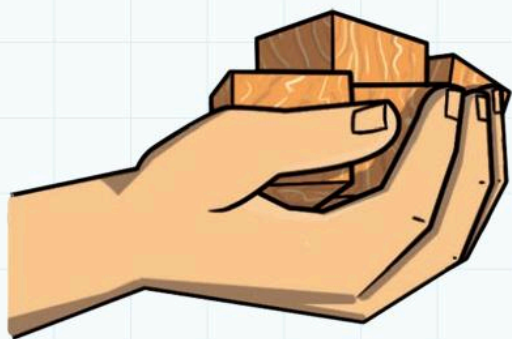
Which held the **least**?
Draw a picture of it.



9B Estimating capacity

Explore

How many things can you hold in your hand?



I can hold _____ cubes in my hand.

I can hold _____ pencils in my hand.








I can hold _____ stones in my hand.

I can hold _____ beads in my hand.

Estimate how many cubes will fill:

your shoe, a beaker, a plant pot, a dish, a box, a mug, a pencil case.

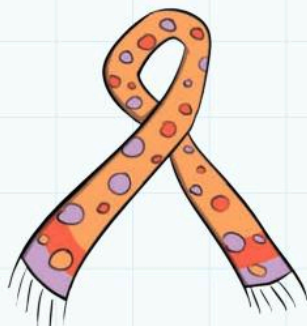
Write what you think in the table.

| | | My estimate | Number of cubes |
|---------------|---|-------------|-----------------|
| My shoe |  | | |
| A beaker |  | | |
| A plant pot |  | | |
| A dish |  | | |
| A box |  | | |
| A mug |  | | |
| A pencil case |  | | |

9C Comparing and describing

Discover

longer than



wider than



shorter than



Look at the scarves. Draw each answer.

Which scarf looks wide?

It is the **widest**.

Which looks short?

It is the **shortest**.

Draw the **longest** scarf.

This scarf

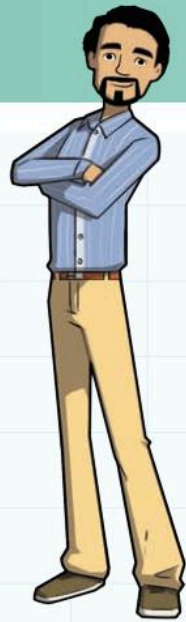


is longer than

This scarf



is shorter than



shorter than

tall

taller than

short

This man



is _____
than this man.



This man



is _____
than this man.



This man

is **taller** than
this man.

9C Comparing and describing

Explore

What can you find out?

Draw the pictures to make it true.



holds **more than**



holds **less than**



and



are **heavier than** me.



and



are **lighter than** me.

This is **light**.



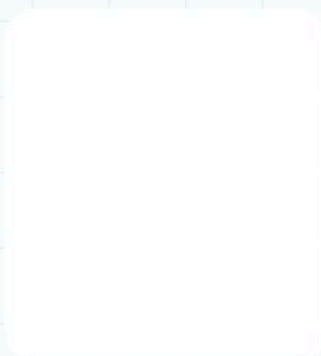
This is very **heavy**.



Draw the **tallest** person in your house.



Draw the **shortest** person in your house.



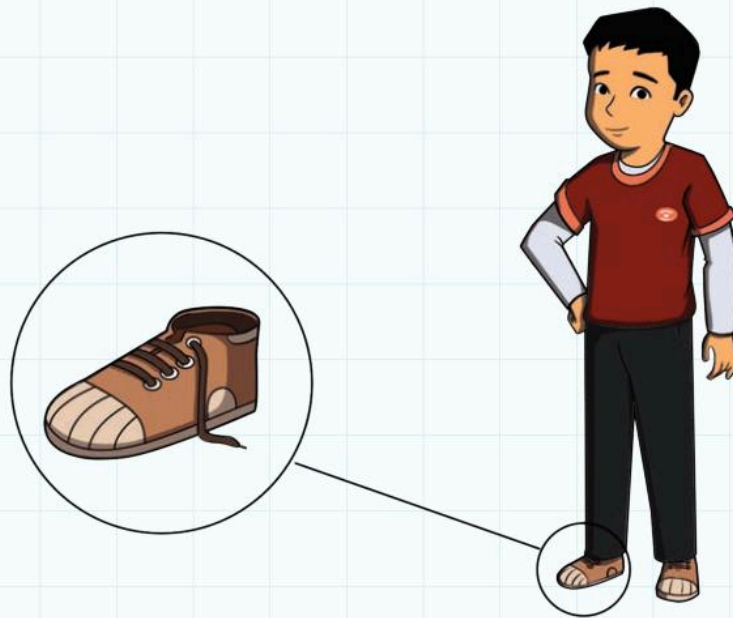
9 Measures

Connect

Large hands
and small feet



A tall person has been in your classroom. He left a handprint.
Use this handprint to make a full-size drawing of the tall person.



A little person has also visited your classroom and left a shoe behind.
Use the shoe to work out how tall the little person is.

9 Measures

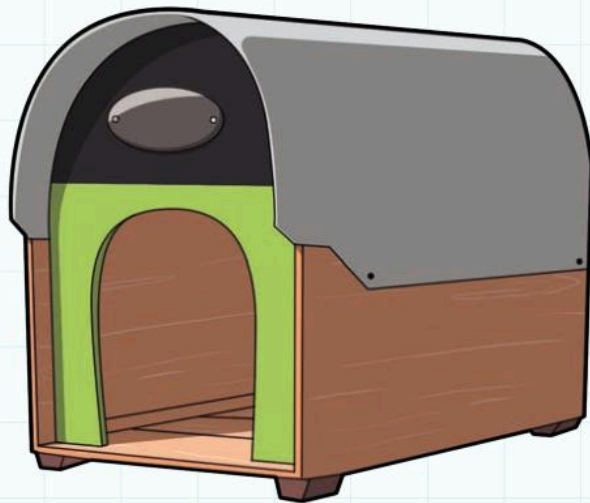
Review

Choose a favourite toy animal.

Imagine you have an animal at home.

Build a model of a shelter that the animal could live in.

There should be enough space for the animal to move around.



Make sure you measure your animal.

How long is it? _____

How tall is it? _____

Will your shelter be big enough for two animals?

10 Shapes

Engage



Look at the picture.

What shapes can you see?

Can you see a shape that you haven't seen before?

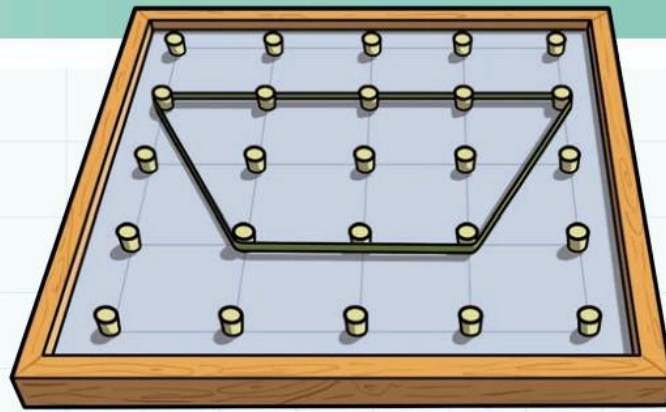
Can you find these shapes in your classroom?

10A 2D Shapes

Discover

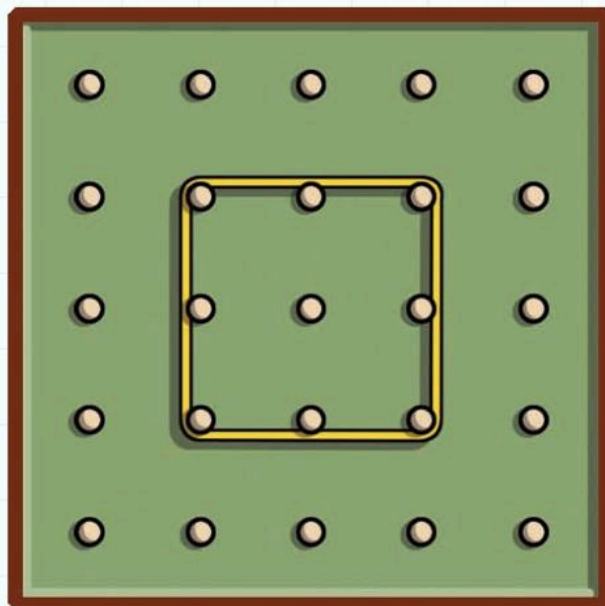
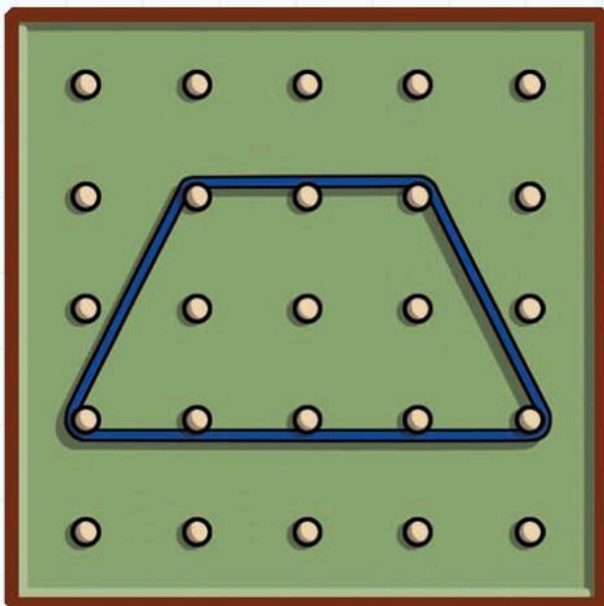
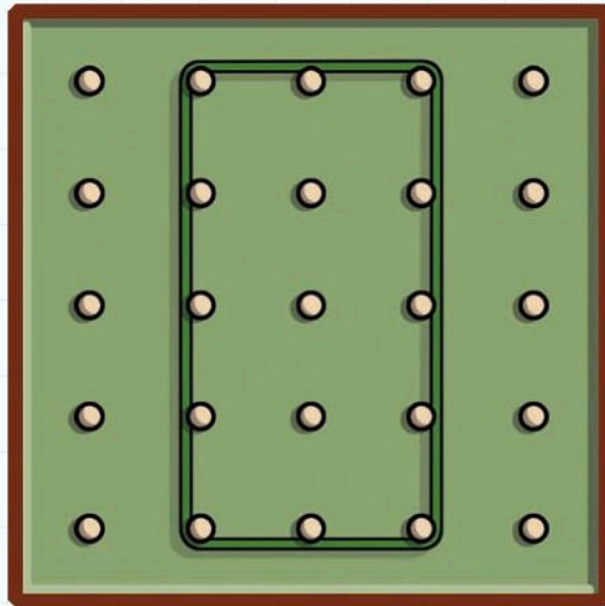
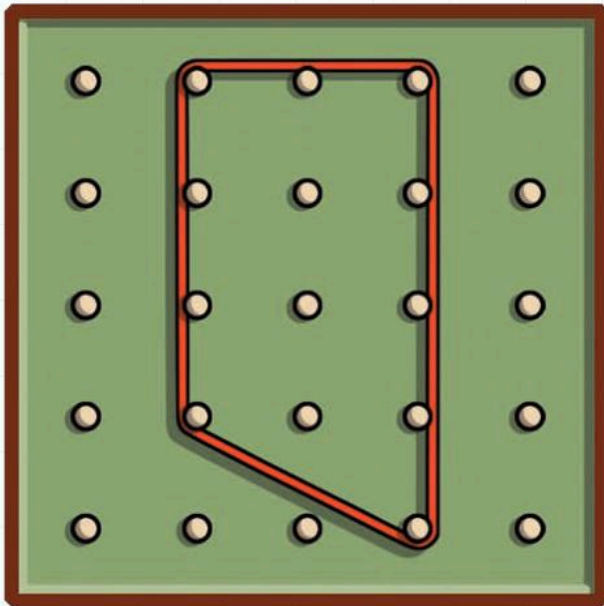
You will need:

- a geoboard
- some coloured elastic bands.

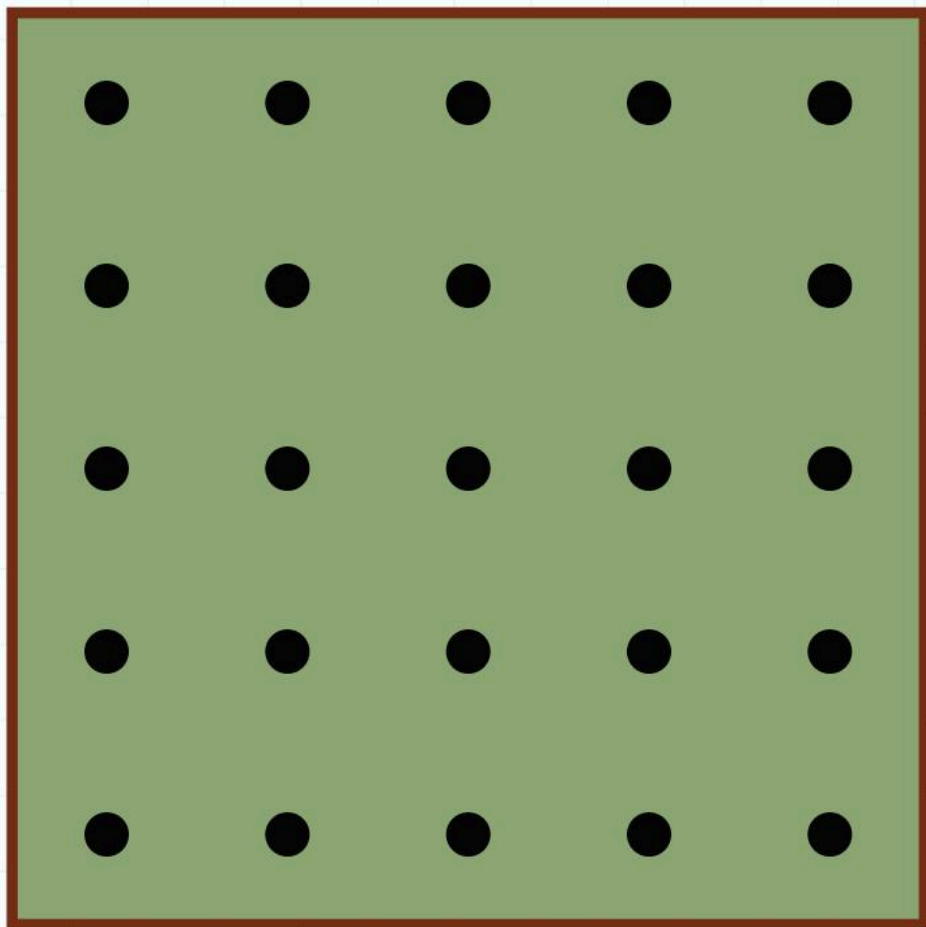


How many different shapes with four sides can you make?

Use a different colour for each shape.



Draw the shapes that you made. Show the different colours.

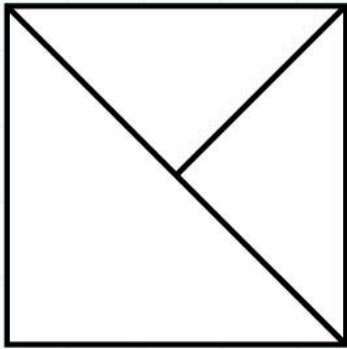


I made _____ different shapes with four sides.

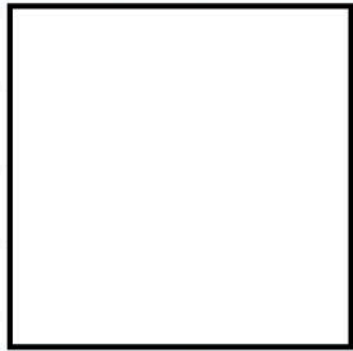
10A 2D Shapes

Explore

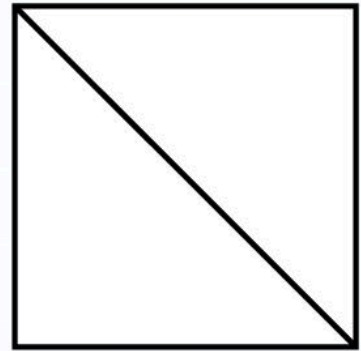
Draw this shape.



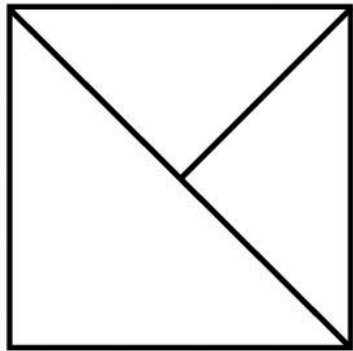
1 Start with a square.



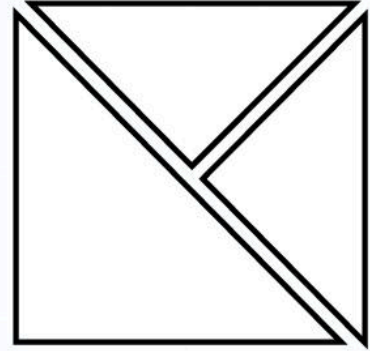
2 Draw the diagonal.



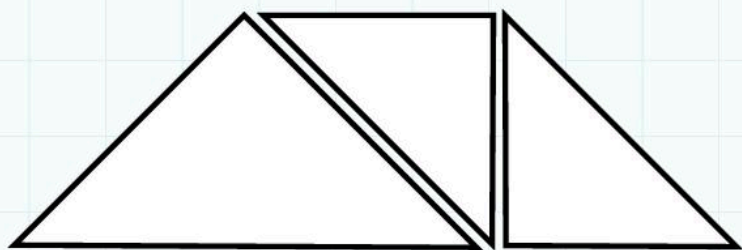
3 Draw a line from a corner to the middle of the square.



4 Cut along the lines.



Move the shapes to make different shapes.



How many different shapes can you make?

Draw the shapes.

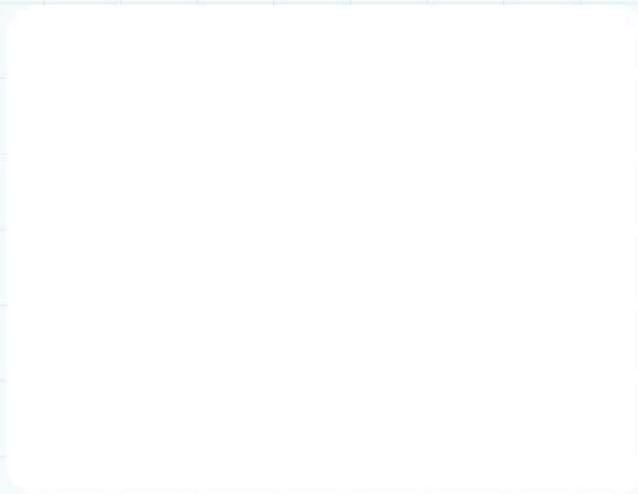
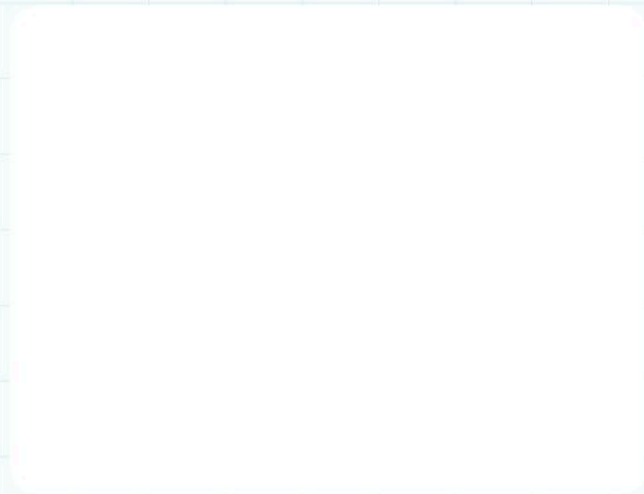
3 sides

4 sides



5 sides

6 sides



10B 3D Shapes

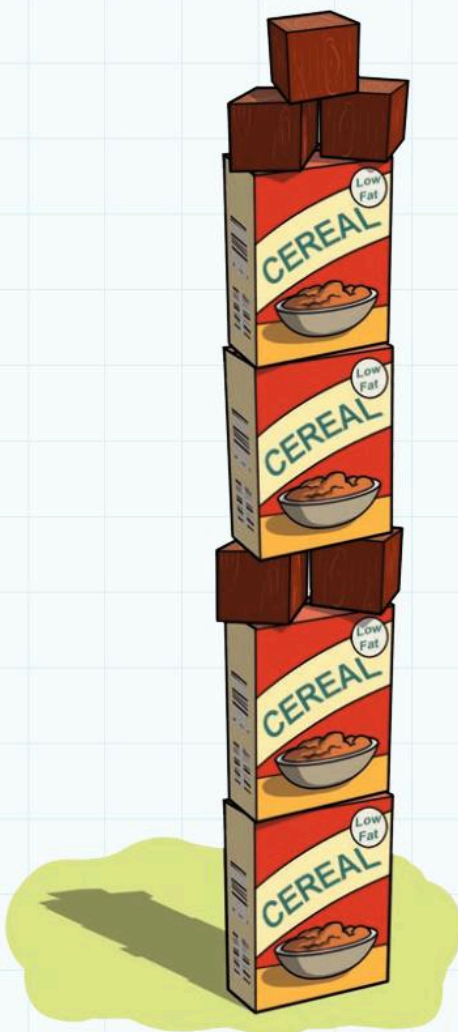
Discover

You will need:

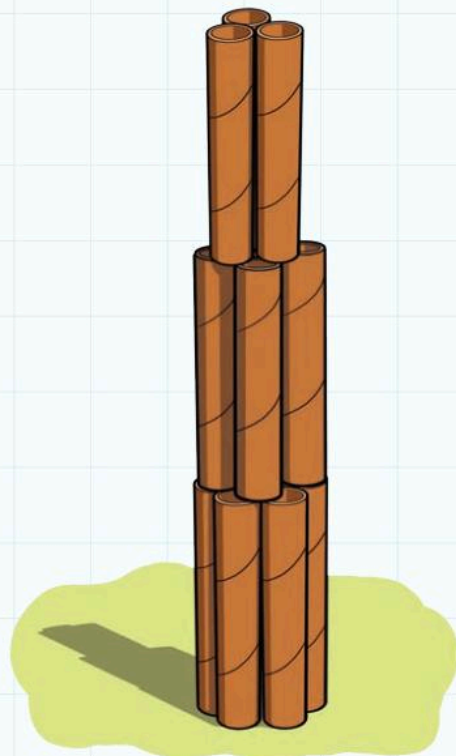
- empty cereal boxes
- kitchen roll tubes
- tins
- solid wooden blocks.



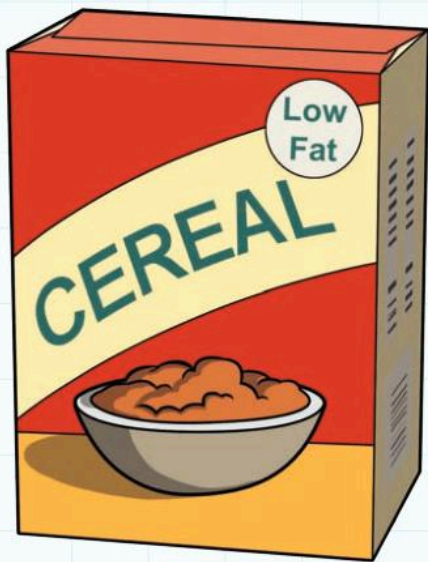
Build a tower.



Build a taller tower.



Build a tower with cylinders.



Choose a box to
put at the bottom.

How many boxes did you use?

I used _____ boxes.

Build a tower with your friend.

How many boxes did you use?

We used _____ boxes.

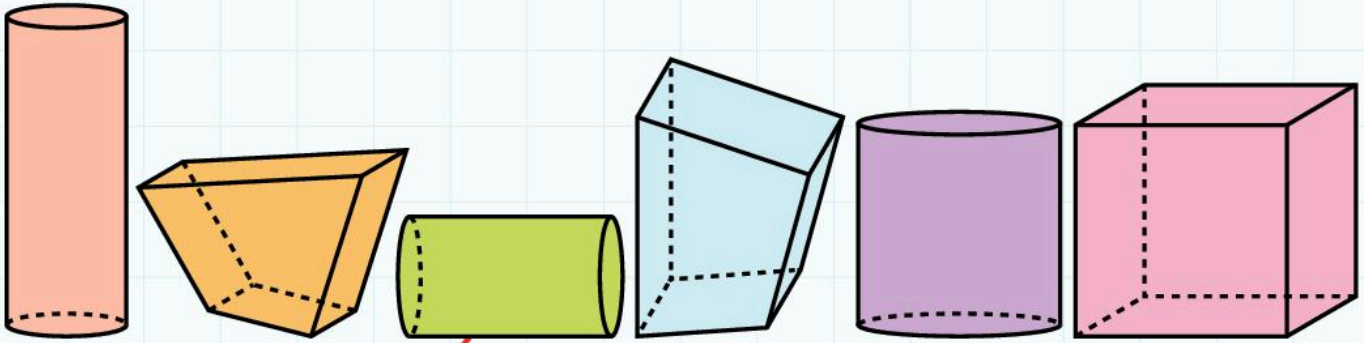


Build a tower as tall as
you, on top of that box.

10B 3D Shapes

Explore

Sort the shapes. Join them with a line.



Curved edges

Straight edges

How many shapes have curved edges?

There are _____ shapes with curved edges.

How many shapes have straight edges?

_____ shapes have straight edges.

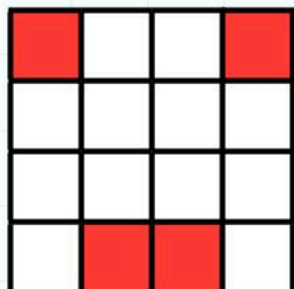
Draw a shape with curved edges.

Draw a shape with straight edges.

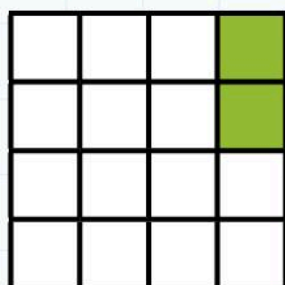
10C Symmetry

Discover

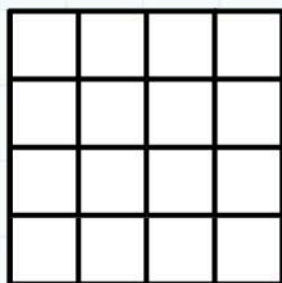
Is this pattern **symmetrical**? Use a mirror to find out.



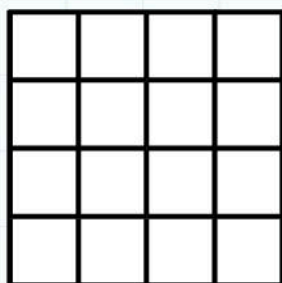
Is this pattern symmetrical? Use a mirror to find out.



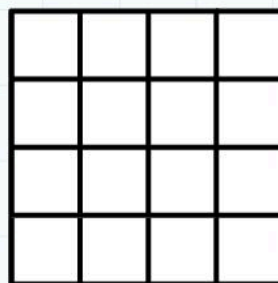
Colour 1 square.



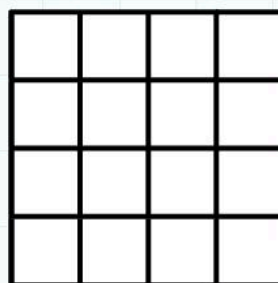
Colour 3 squares.



Colour 2 squares.



Colour 4 squares.



Are your patterns symmetrical?

Put a tick (✓) next to the symmetrical patterns.

10C Symmetry

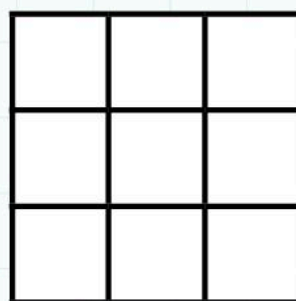
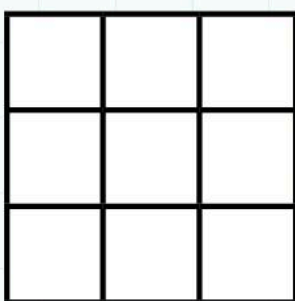
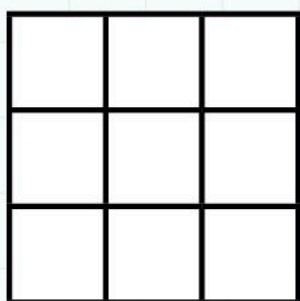
Explore

Use the first grid.

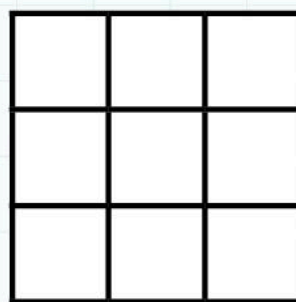
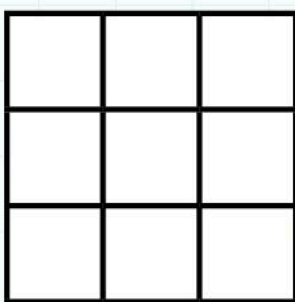
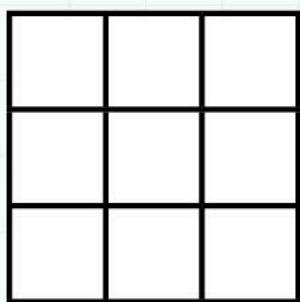
Colour in the middle square.

Is the grid symmetrical?

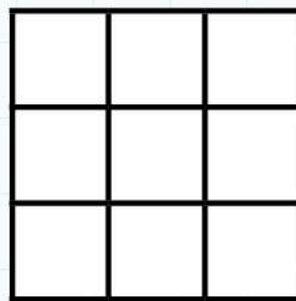
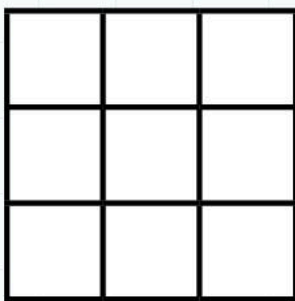
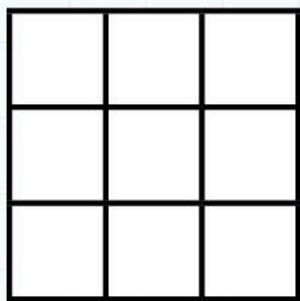
Find other places where you can colour one square and the grid is still symmetrical. Use your mirror to check.



Draw symmetrical patterns with 2 squares coloured in.



Draw symmetrical patterns with 3 squares coloured in.



10D Position and movement

Discover

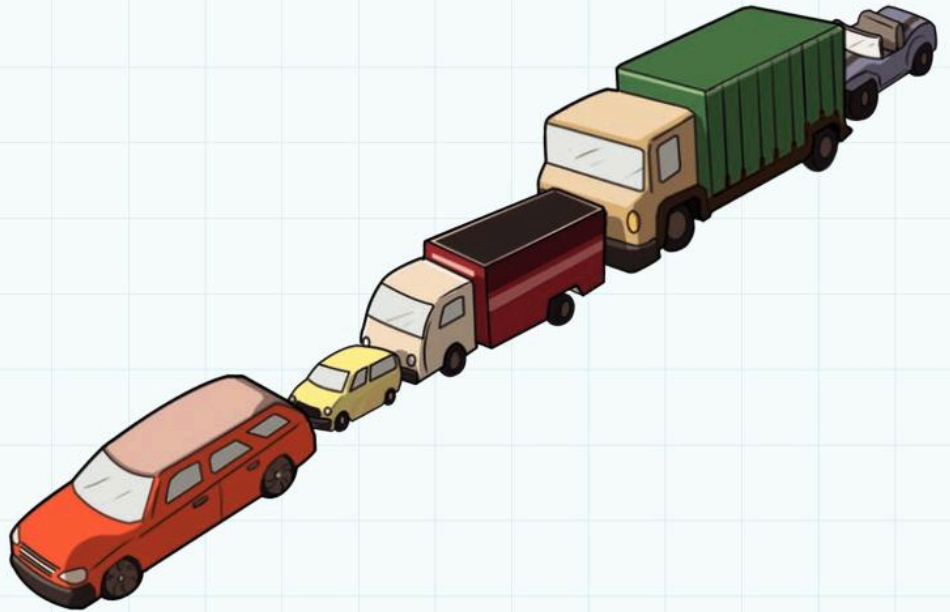
Draw lines to show
The vehicle at the front

The vehicle at the back

The biggest vehicle

The smallest vehicle

Draw the fastest vehicle in the queue.



Draw the slowest vehicle in the queue.

10D Position and movement

Explore



Draw your journey to school in the box below.

A large, empty white rectangular box with rounded corners, intended for drawing a journey to school.

10 Shapes

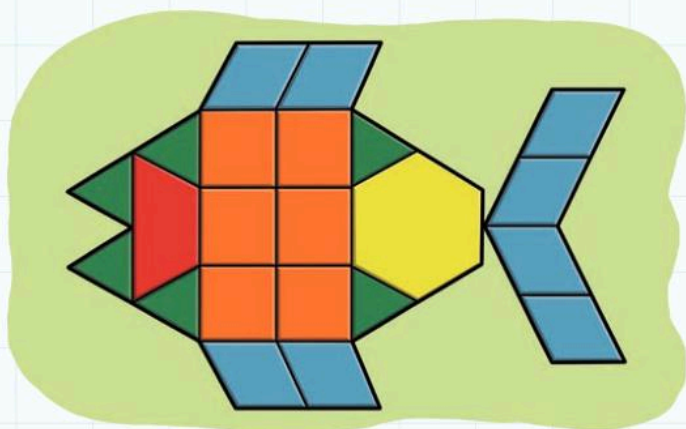
Connect

You will need some pattern blocks and a mirror.



Use as many pattern blocks as you like.

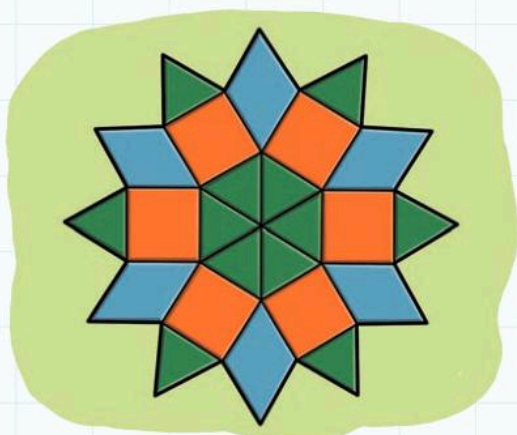
Make a flat pattern with at least one line of symmetry.



Make sure the shapes and colours are symmetrical.

You could use lots of colours or just a few colours.

Use a mirror to check that your pattern is symmetrical.



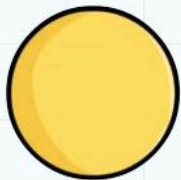
10 Shapes

Review

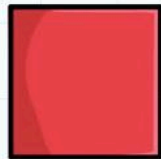
You will go on a shape walk.



Can you find these shapes?



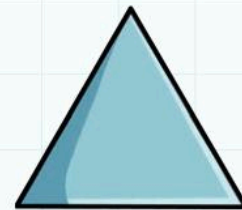
circle



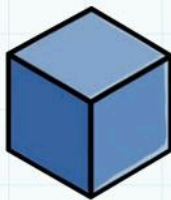
square



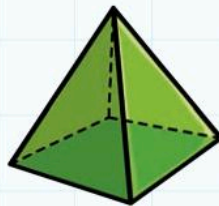
rectangle



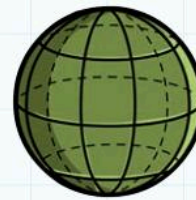
triangle



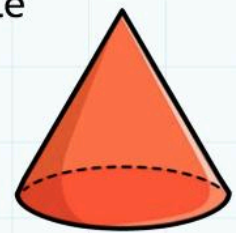
cube



pyramid

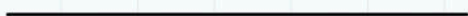


sphere



cone

Can you find?



straight lines



curved lines



a symmetrical shape

11 Time

Engage

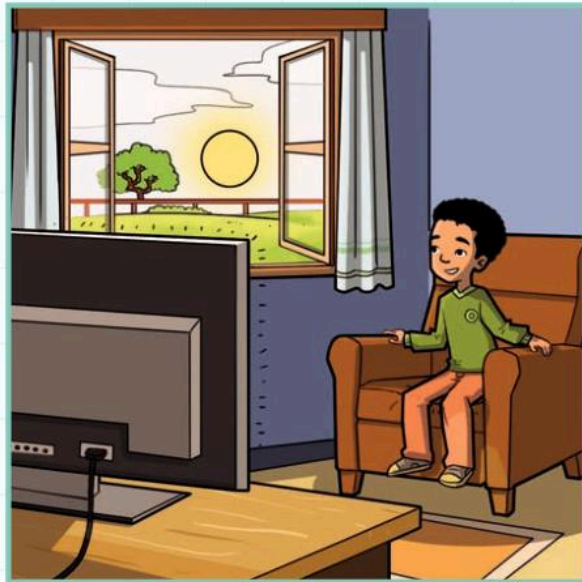


What is time?

Why do we need to know the time?

11A Ordering events

Discover



1

2



3

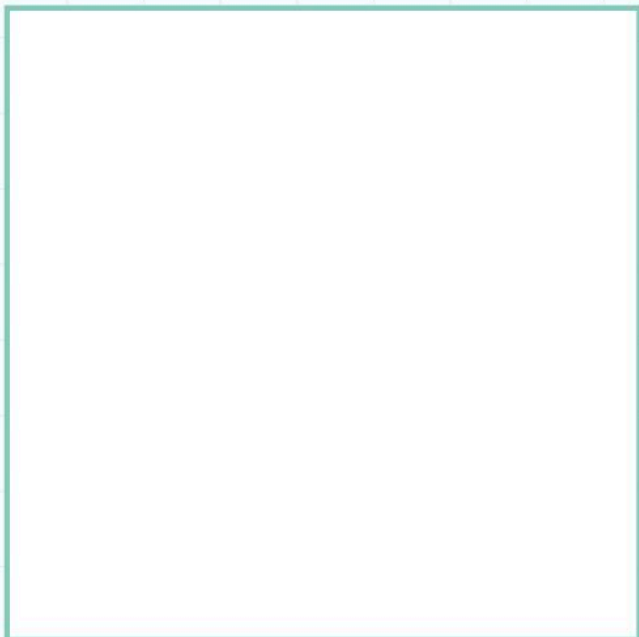
4



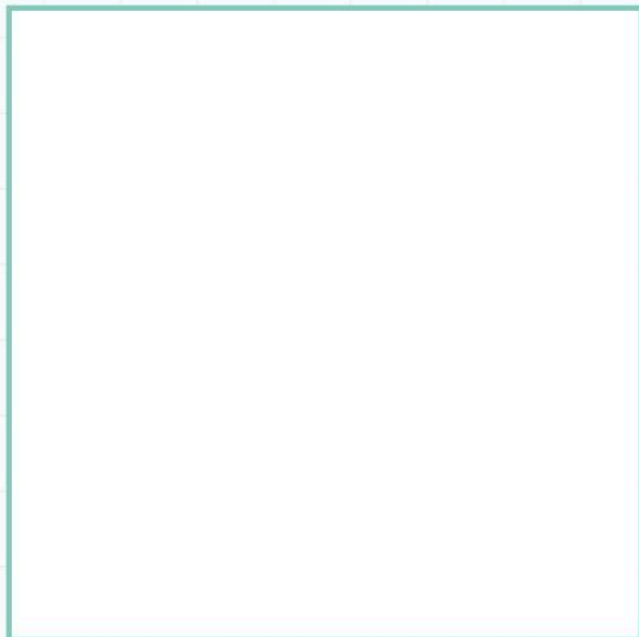
Which came first?

Join the numbers to the pictures.

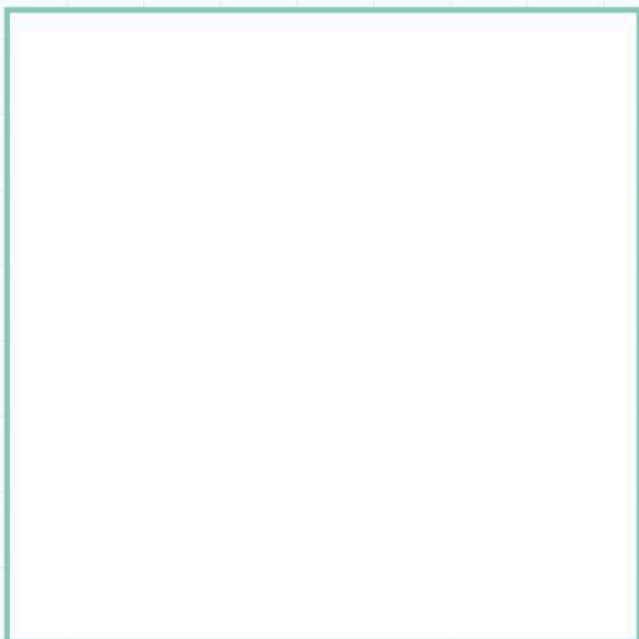
Make your own set of pictures.



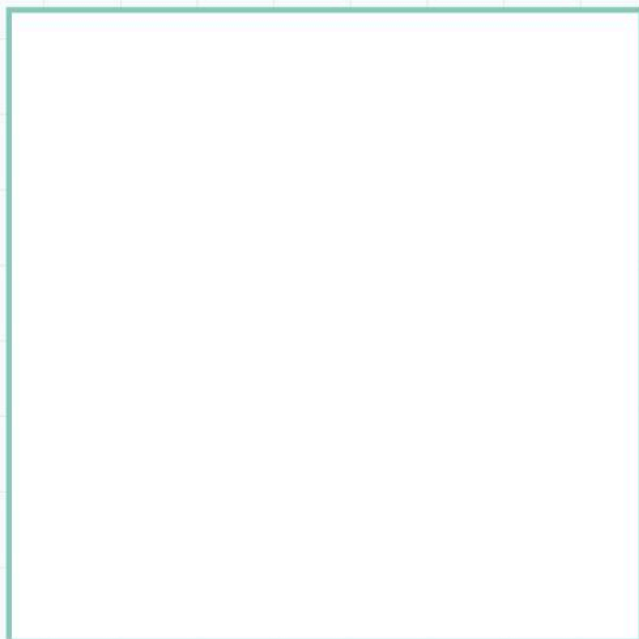
in the morning



in the afternoon



after school



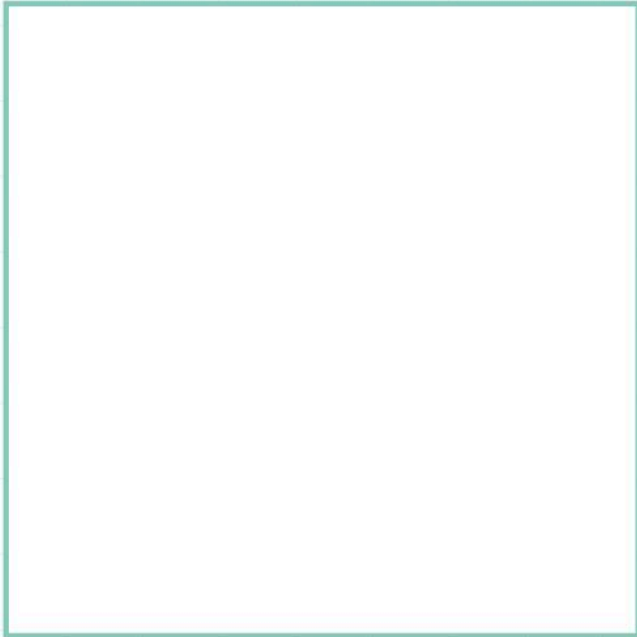
at night

11A Ordering events

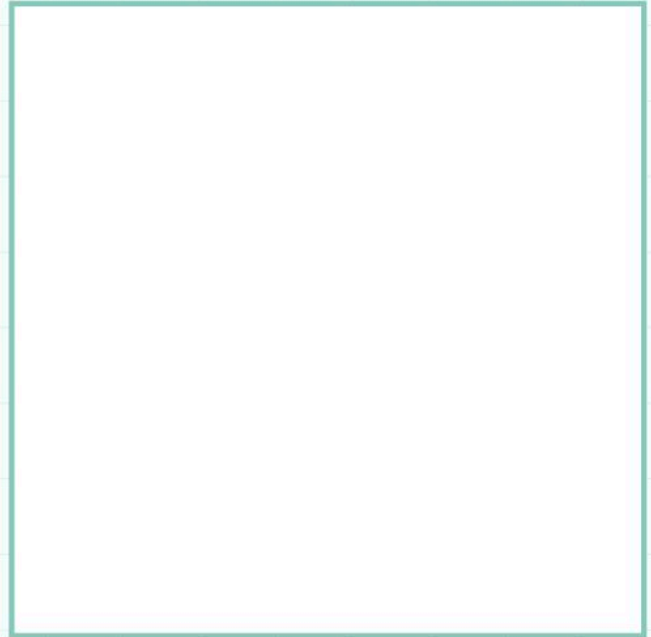
Explore

You are going to plan your perfect day.

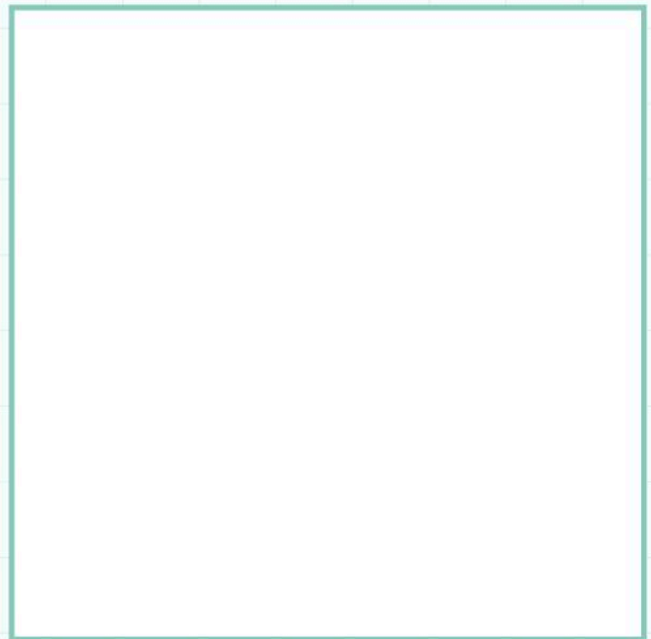
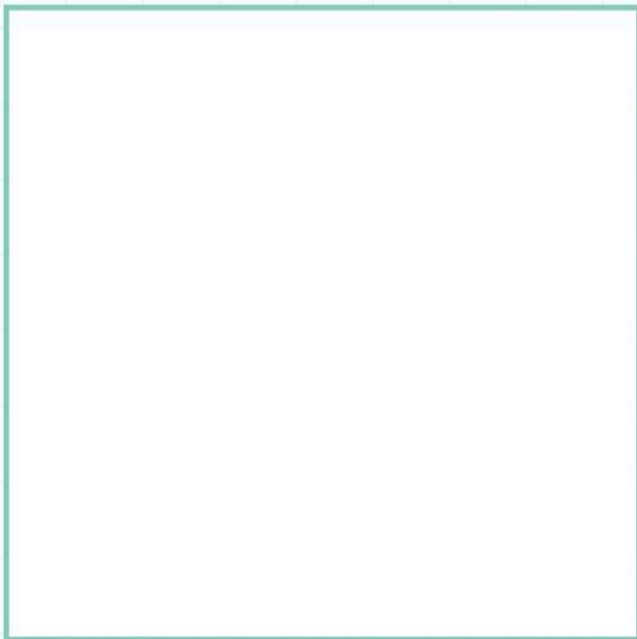
Draw pictures and write labels.

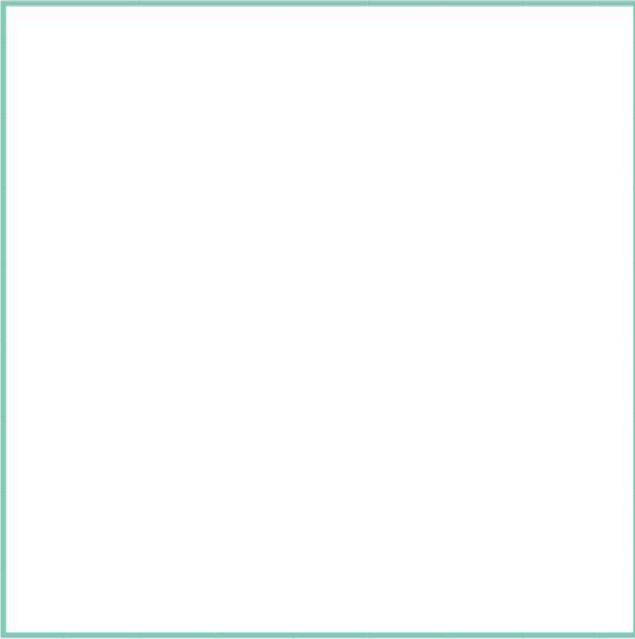


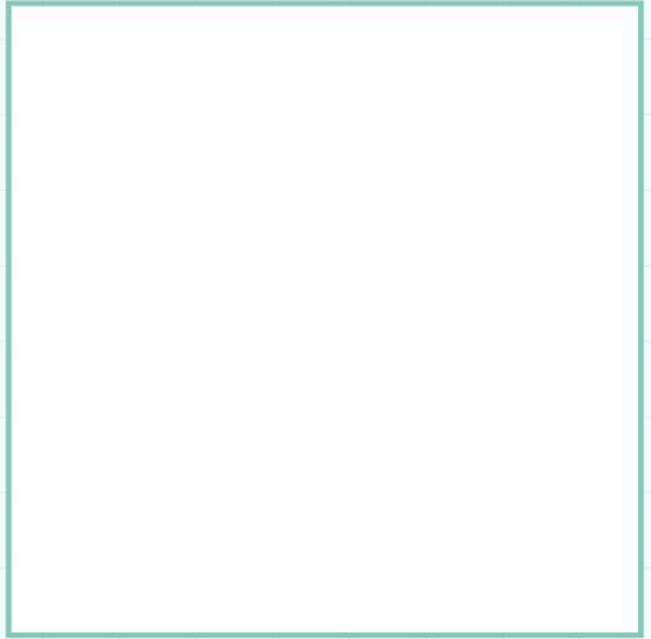
getting up

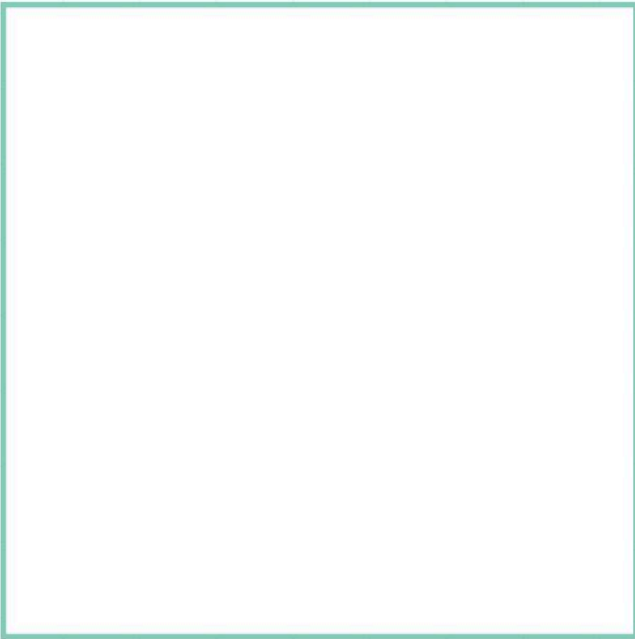


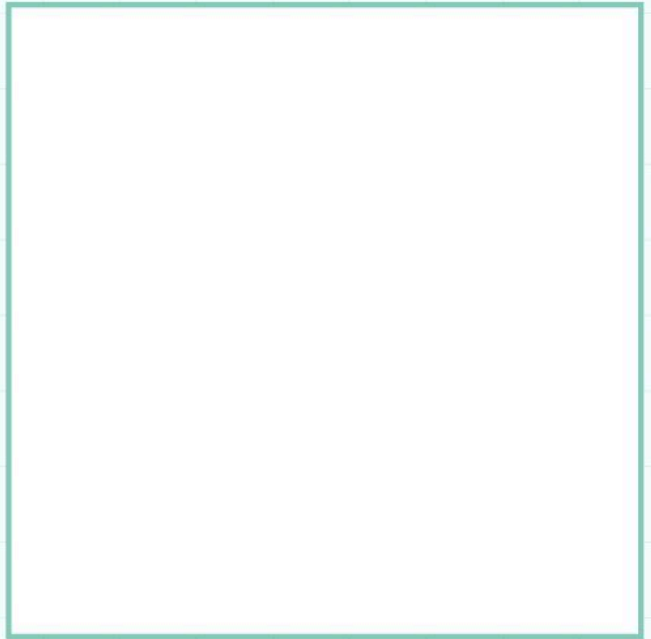
having breakfast











11B Days of the week

Discover

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|--------|---------|-----------|----------|--------|----------|--------|
| | | | | | | 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 | | | | | |

How many days in the month?

There are _____ days in the month.

How many Tuesdays in the month?

There are _____ Tuesdays in the month.

How many Saturdays in the month?

There are _____ Saturdays in the month.

Which days occur only four times in the month?

_____ and _____ and _____

and _____ occur only four times.

Which days occur five times in the month?

_____ and _____ and _____

occur five times.

How many months in a year?

There are _____ months in a year.

11B Days of the week

Explore

Write the correct day of the week.

The day after Wednesday is _____.

The day after Friday is _____.

The day before Tuesday is _____.

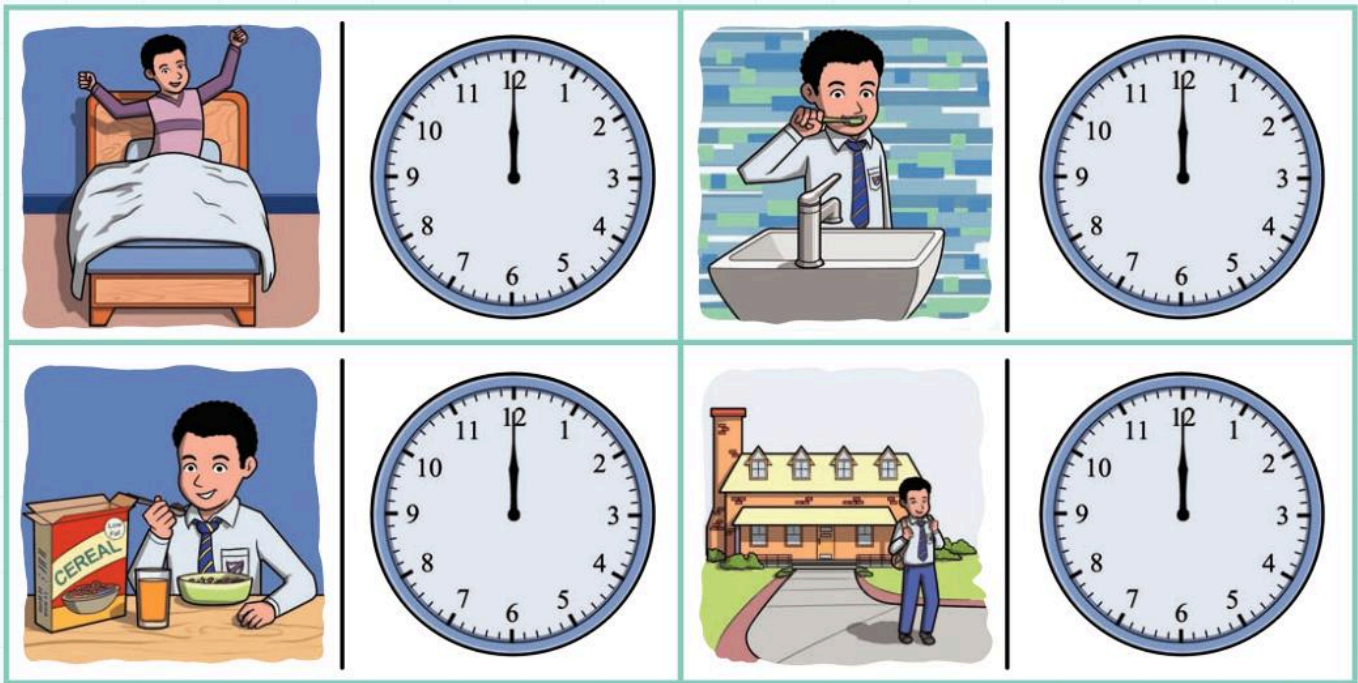
The day before Monday is _____.

Complete the table for days of the week.

| The day before | Today | The day after |
|----------------|--------|---------------|
| | Monday | |
| | | Wednesday |
| Tuesday | | |
| Wednesday | | |
| | Friday | |
| | | Sunday |
| | | Monday |

11C Telling the time

Discover



Draw the short hand on the clock to show the times.

What time do you get up?

What time do you have breakfast?

What time do you brush your teeth in the morning?

What time do you go to school?

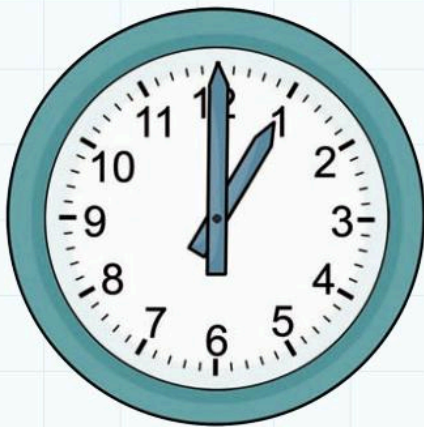
Draw pictures of what you do and write the time.

11C Telling the time

Explore

You will need:

- a clockface resource sheet
- a paper plate
- a split pin
- scissors and glue.



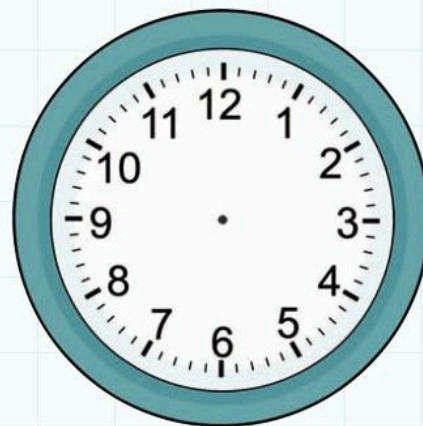
It is always an o'clock time. What number should the long hand point to? _____

Turn the long hand to that number.

Make some more o'clock times.

I have made _____ o'clock.

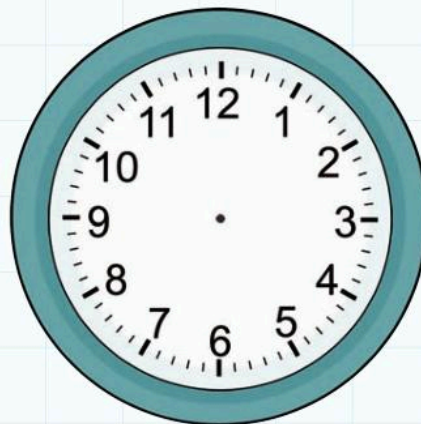
Draw the hands.



Make a new time.

I have made _____ o'clock.

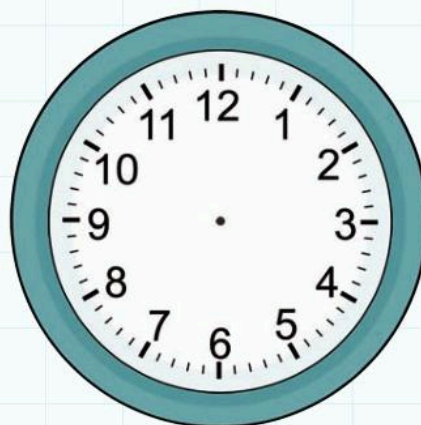
Draw the hands.



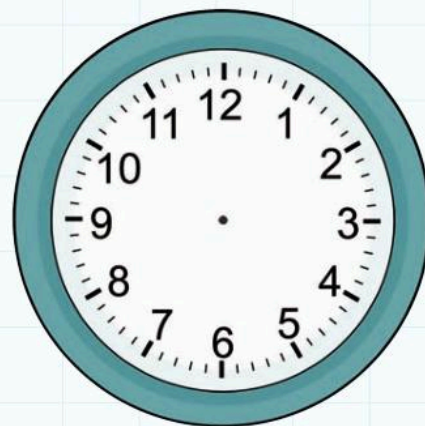
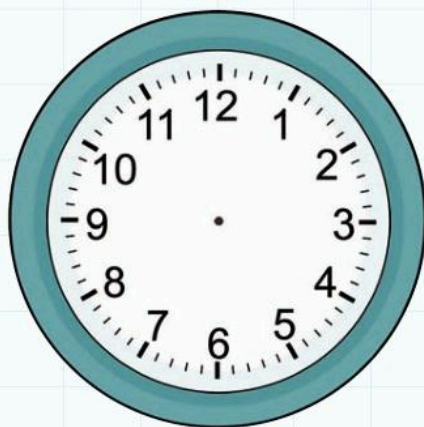
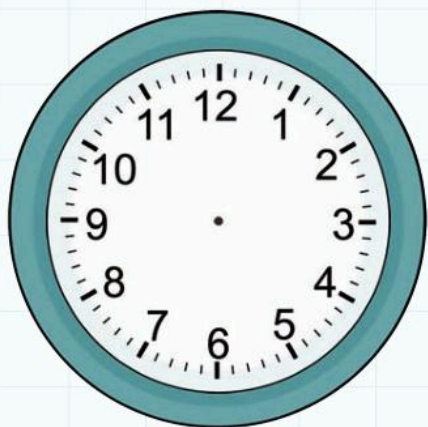
Make a new time.

I have made _____ o'clock.

Draw the hands.



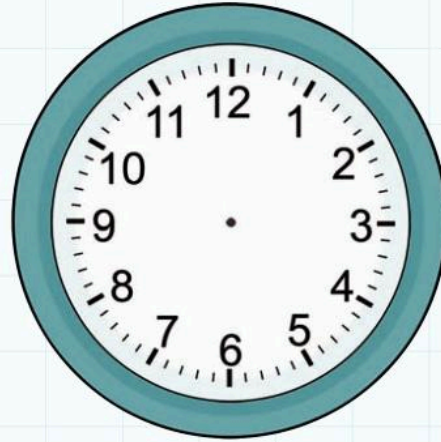
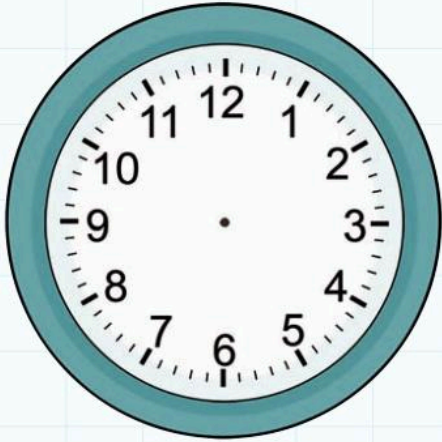
Put the times in order.



11 Time

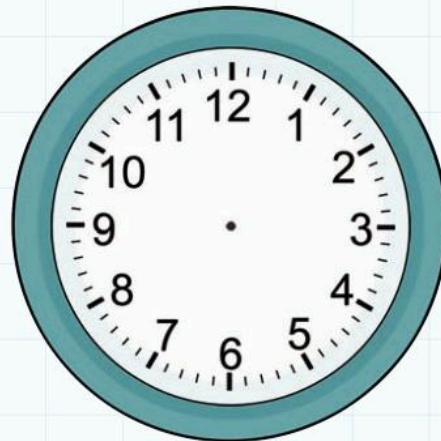
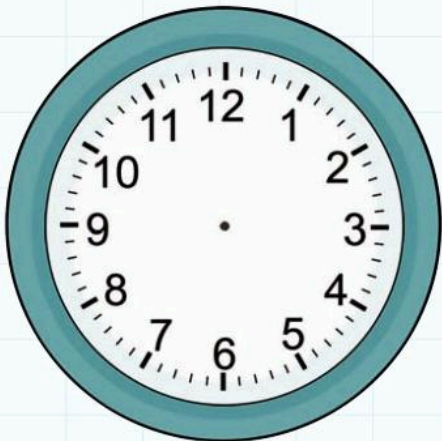
Connect

I know how to write an o'clock time.



I wake up at _____.

I go to school at _____.



I come home at _____.

I go to bed at _____.

I know about my day at school.

Draw and write four things that you do at school.

| First I | After that I | Then I | Last I |
|---------|--------------|--------|--------|
| | | | |




11 Time

Review



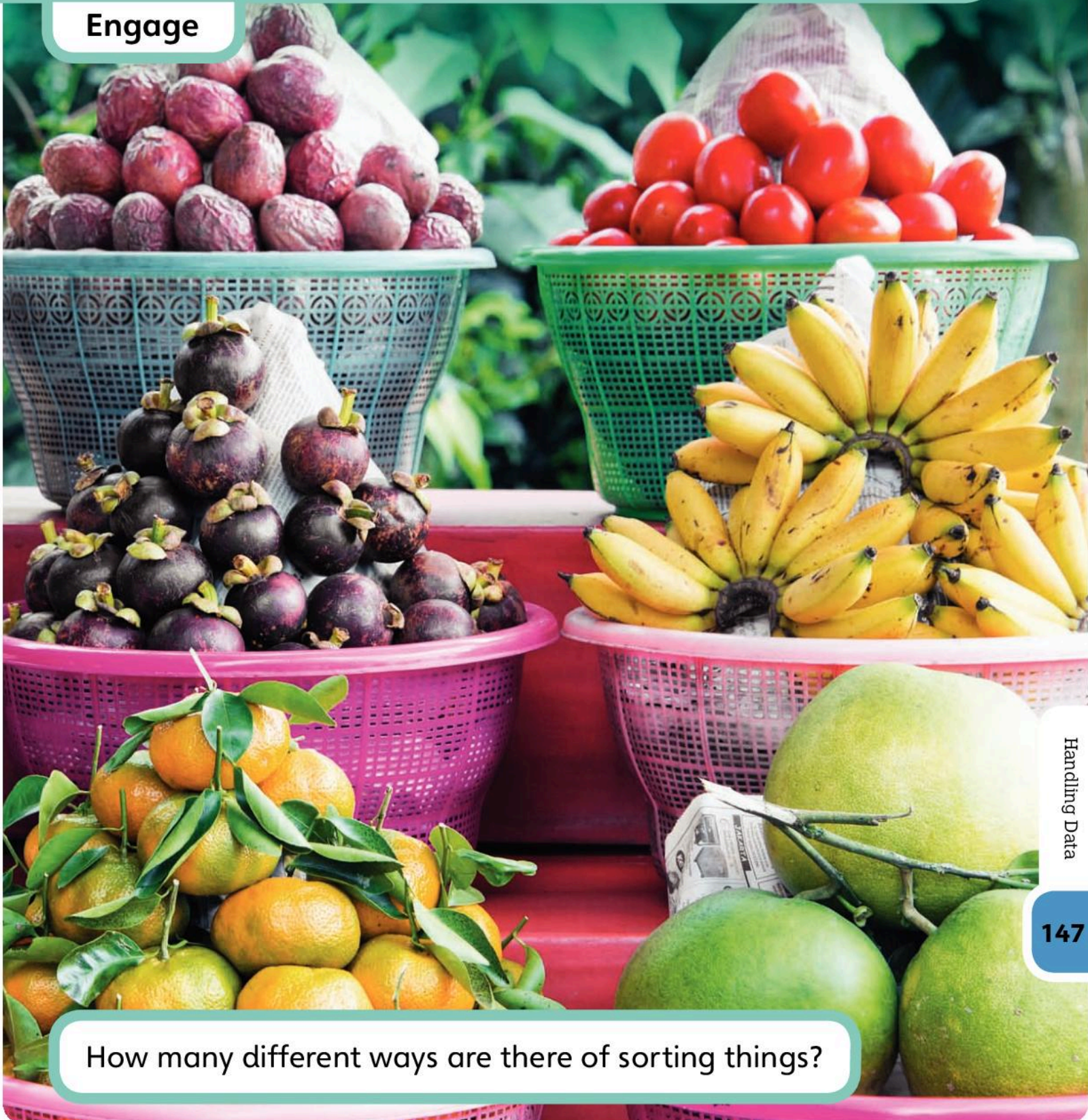
What do you do each day of the week?

Complete this table with pictures or words.

| |  |  |  | The day is special because |
|-----------|--|--|--|----------------------------|
| Monday | | | | |
| Tuesday | | | | |
| Wednesday | | | | |
| Thursday | | | | |
| Friday | | | | |
| Saturday | | | | |
| Sunday | | | | |

12 Handling Data

Engage



How many different ways are there of sorting things?

12A Block graphs

Discover

You will need:

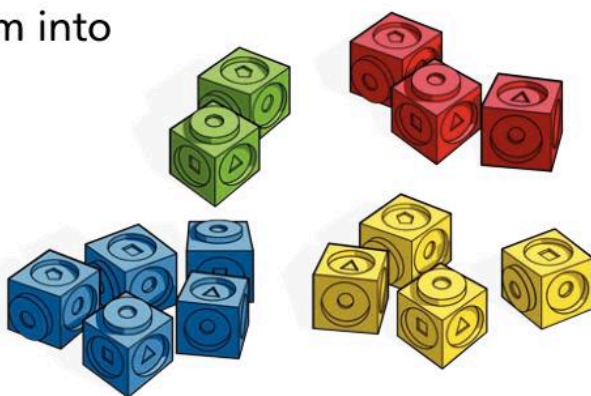
- some interlocking cubes.



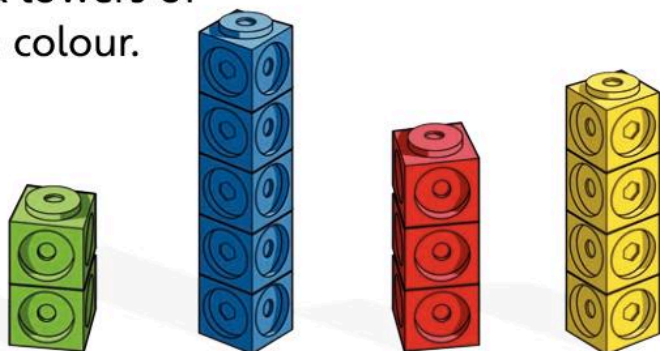
Fill your hands with cubes.



Sort them into colours.



Build towers of each colour.



Which colour tower is the **tallest**?

The _____ tower is the tallest.

Which colour do you have **most** of?

_____ is the colour I have most of.

Which colour tower is the **shortest**?

The _____ tower is the shortest.

Which colour do you have **least** of?

_____ is the colour I have least of.

Do it again.

Which colour did you have **most** of this time? _____

Which colour did you have **least** of? _____

Was it the same as before?

Talk to your partner about what happened and what you found out. Here are some sentences to help you.

The first time I did it the _____ tower
was _____.

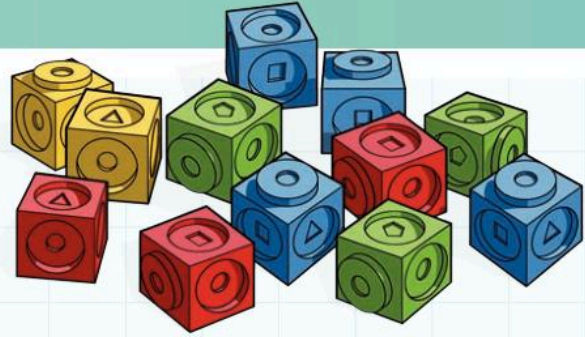
The second time I did it the _____ tower
was _____.

12A Block graphs

Explore

You will need:

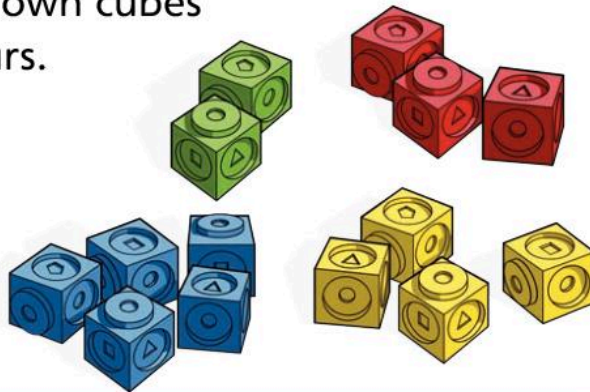
- some red, blue, yellow or green interlocking cubes.



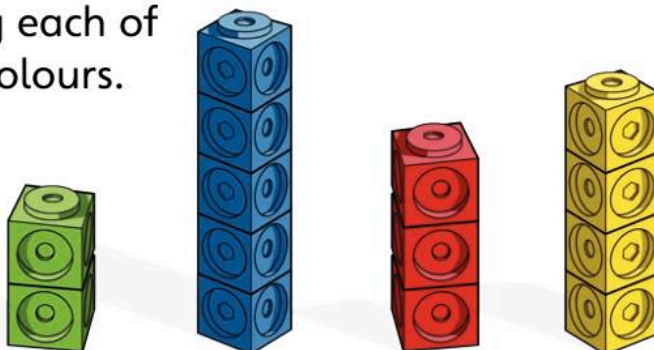
Work in pairs.
Each of you fill
your hands
with cubes.



Sort your own cubes
into colours.



Build your own towers of cubes
using each of
the colours.



Who had **most** red cubes? _____ had most red cubes.

How do you know? _____

Who had **most** green cubes? _____ had most green cubes.

How do you know? _____

Who had **least** yellow cubes? _____ had least yellow cubes.

How do you know? _____

Who had **least** blue cubes? _____ had least blue cubes.

How do you know? _____

Join your towers with your friend's towers, keeping each colour together.



How many different things can you find out?

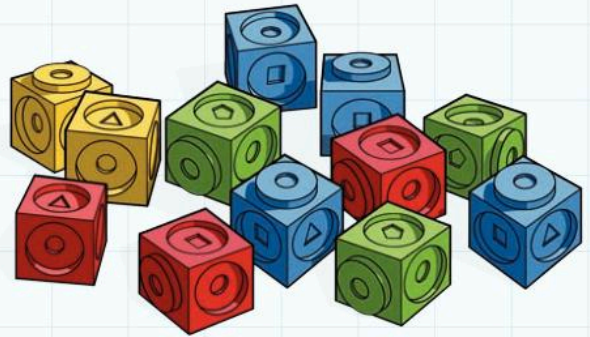
12B Pictograms, lists and tables











Discover

You will need:

- some interlocking cubes.

Work in groups of six. Ask your friends in your group 'Do you like apples  or grapes  best?'

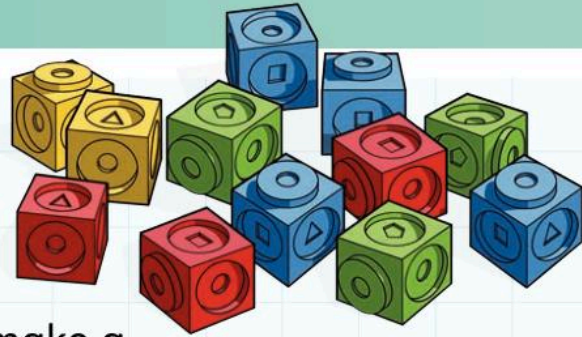


| | | |
|---|---|--|
| 5 |  |  |
| 4 |  |  |
| 3 |  |  |
| 2 |  |  |
| 1 |  |  |

Ask each friend to put their cube on the grid covering the apple or grapes.

Do your friends like apples or grapes best?
How do you know?

My friends like _____ best.



Choose something to ask your friends about.

Fill in the grid. Use the cubes to make a block graph to show what your friends like.

| | | | | |
|---|--|--|--|--|
| 5 | | | | |
| 4 | | | | |
| 3 | | | | |
| 2 | | | | |
| 1 | | | | |
| | | | | |

What have you found out about your friends?

Write or draw what you have found out.

I found that more of my friends like _____
than _____.

12B Pictograms, lists and tables

Explore

We want to buy some toys for the playground. What should we buy?



balls



skipping ropes



hoops



cones

Ask your friends 'Which toy do you want to buy?'

Draw pictures in the grid to show what your friends chose.
Then answer these questions.

Which was the most **popular**?

The _____ was the most popular. It had _____
spaces filled.

Which was the least popular?

The _____ was the least popular. It had _____
spaces filled.

How many of your friends chose the skipping rope?





The skipping rope filled _____ spaces.

How many students did you ask? How can you find out?

I asked _____ students.

Write or draw what you did to collect your data.

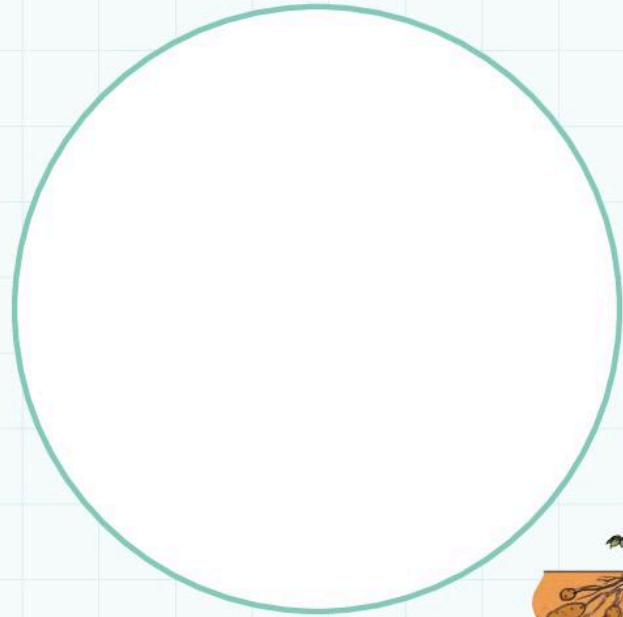
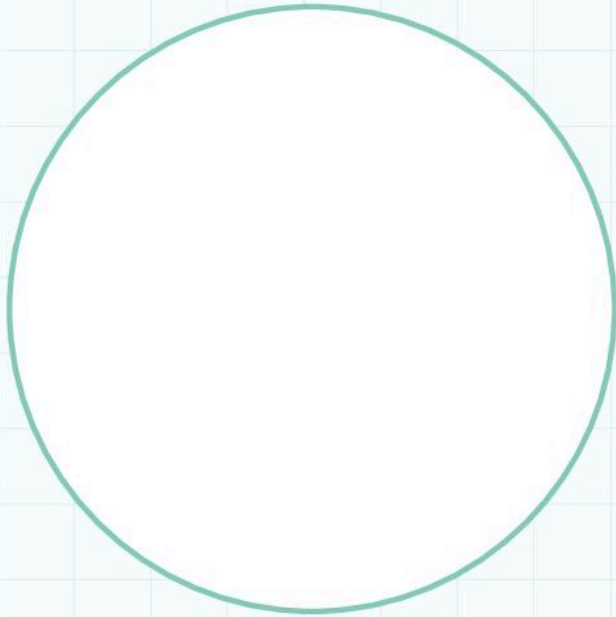
Ask your friends some questions about their pictogram.

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

12C Venn diagrams

Discover

Where would you put the fruit and vegetables?



orange

grows underground



orange



orange pumpkin



turnip



potato



onion



radish



orange pepper



mango



swede



orange squash

How many are in the orange circle?

There are _____ in the orange circle.

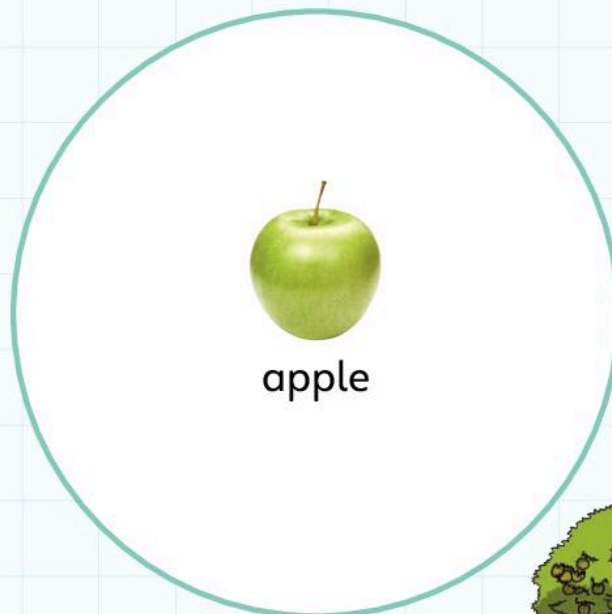
How many are **not** in the orange circle?

There are _____ **not** in the orange circle.



radish

red



apple

grows above the soil



radish



green beans



green apple



tomato



broccoli



potato



water melon



Brussels sprouts



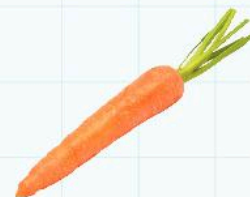
sweet corn



strawberry



cherry



carrot

Where would you put the fruit and vegetables this time?

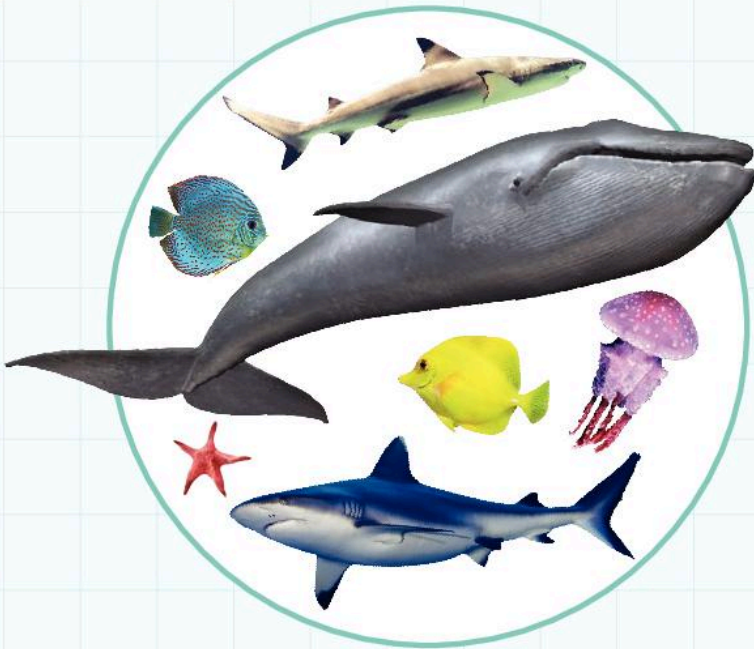
Will some not fit in either circle?

Will some go in both circles?

The first one is done for you.

12C Venn diagrams




Explore



lives in the water



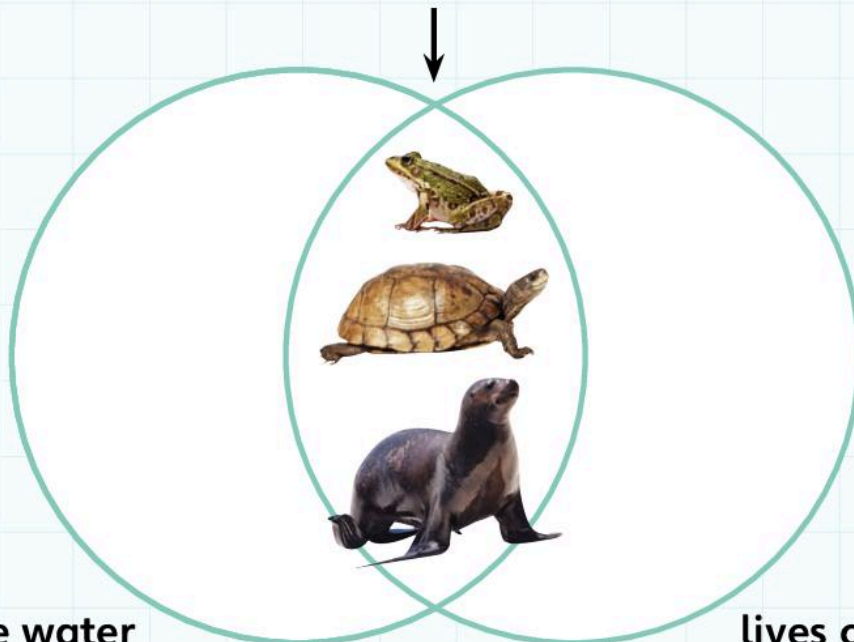
lives on land

What about a frog , or a turtle  or a seal  ?

They live on the land and in the water.

We could move the circles together.

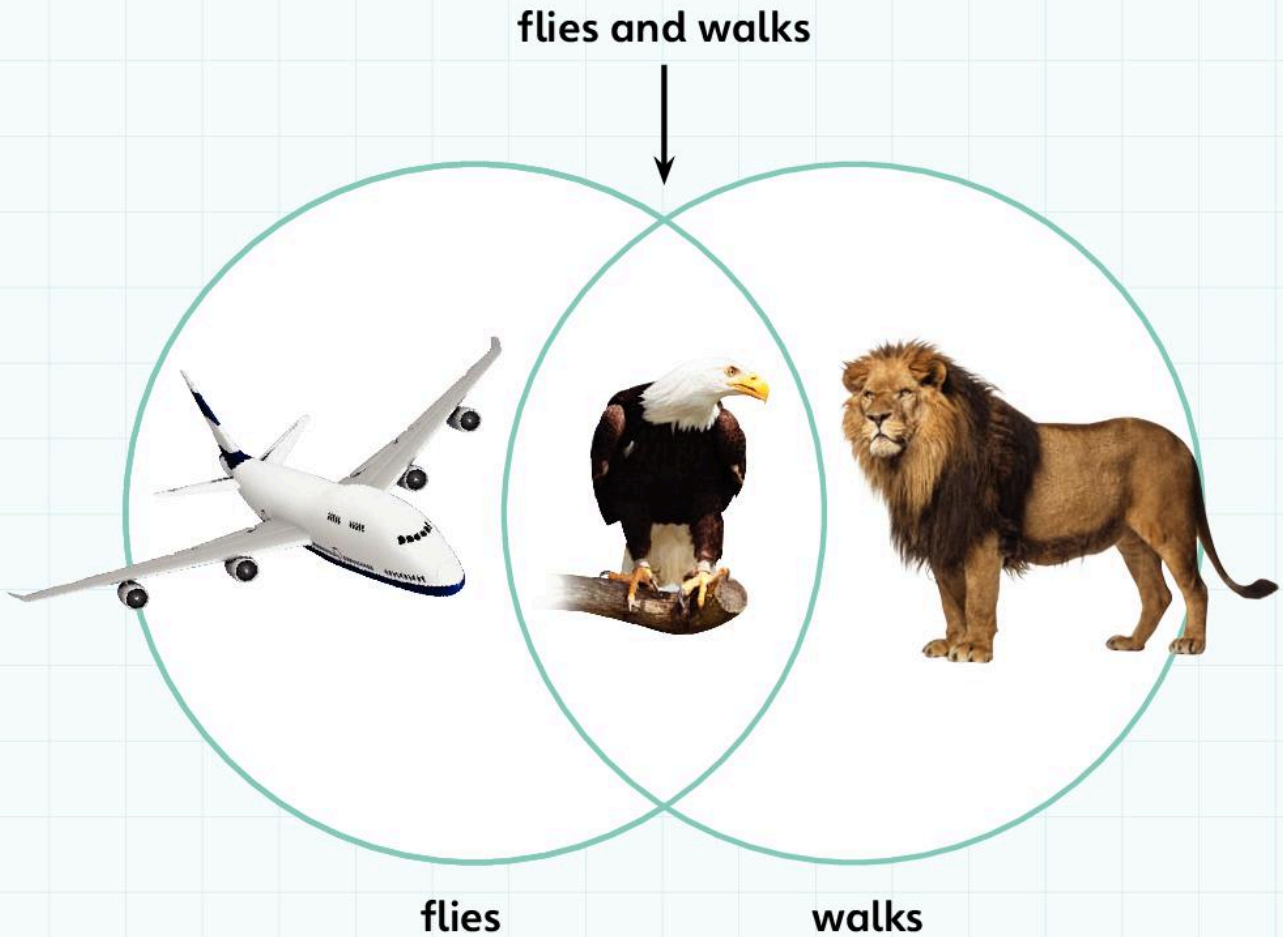
lives in the water and on land



lives in the water

lives on land

Make your own Venn diagram.



What other pictures could you put in your Venn diagram?

Draw one thing that flies.

Draw one thing that walks.

Draw one thing that flies and walks.

Share what you have done with your friend.













What is the same and what is different about your Venn diagrams?

Write or draw one thing that is the same. _____

Write or draw one thing that is different. _____

12D Carroll diagrams

Discover

| | | | |
|-----------|--|---|---|
| | |  broccoli |  orange |
| fruit | |  apple |  onion |
| | |  green beans |  cabbage |
| not fruit | |  cherry |  tomato |
| | |  banana |  watermelon |
| | |  mango |  potato |

Draw lines to sort the fruit into the **fruit** box. Draw a line from all the food items which are not fruit into the other box.

How many fruits are in the **fruit** box?





There are _____ **fruits** in the fruit box.

How many items are **not fruit**?

There are _____ items which are **not fruit**.

There are **too many** in each box.

We need to **sort** them into other boxes.

| | red | not red |
|-----------|---|---|
| fruit |  |  |
| not fruit |  |  |



apple



cabbage



strawberry



cherry



orange



radish



banana



onion

Draw or write the fruit and other items in their new boxes.

How many red fruits? There are _____ red fruits.

How many red items which are not fruit? There are _____ red items which are not fruit.

How many red items altogether?

There are _____ red items altogether.

How many items are there that are **not** red? _____

12D Carroll diagrams

Explore

Think of some food you like and some food that you don't like.

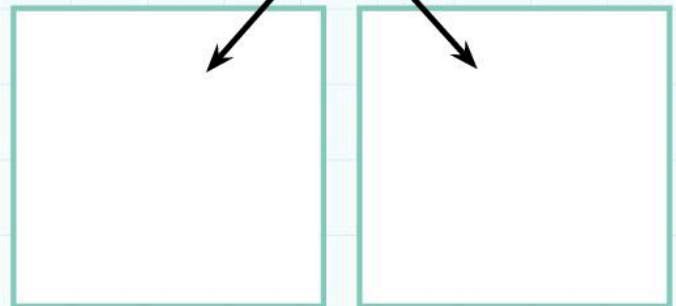
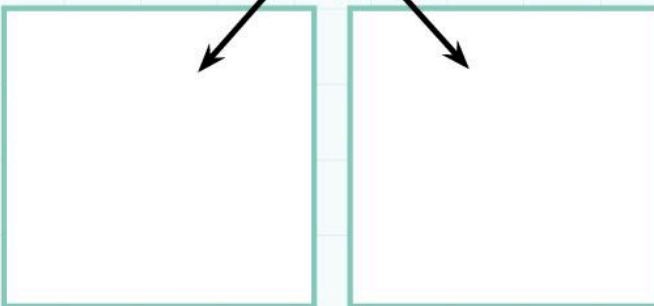
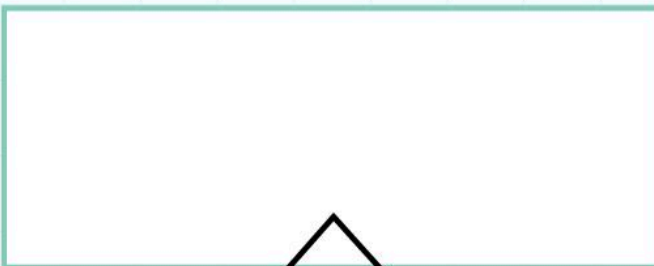
Draw the food here.



Sort your food into two sets or groups.

healthy

not healthy



what I like

what I don't like

what I like

what I don't like

Sort each of them into what you like and what you don't like.

Now you are ready to put them into your Carroll diagram.

| | food I like | food I don't like |
|-------------|-------------|-------------------|
| healthy | | |
| not healthy | | |

Some of the food will be healthy.

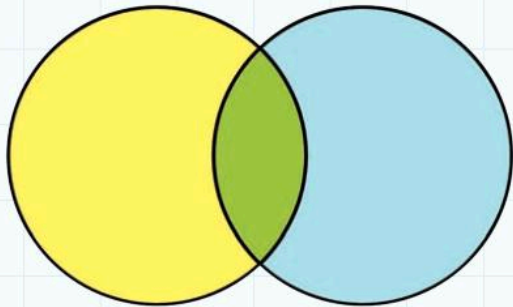
Some of the food will be unhealthy.

Swap Carroll diagrams with your friend.

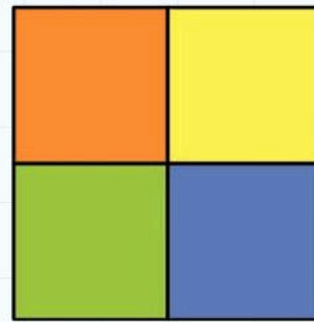
Is their Carroll diagram the same as yours? What is different?

12 Handling data

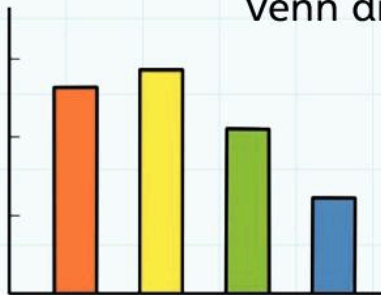
Connect



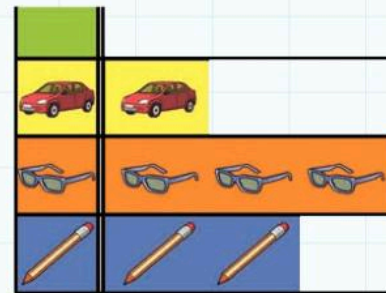
Venn diagram



Carroll diagram



block graph



pictogram

My group were collecting data about _____.

We asked others about their favourite _____.

Draw or write in the box what your group did next.

We used our information to make a _____.

Draw on a piece of paper the graph or diagram that you made.

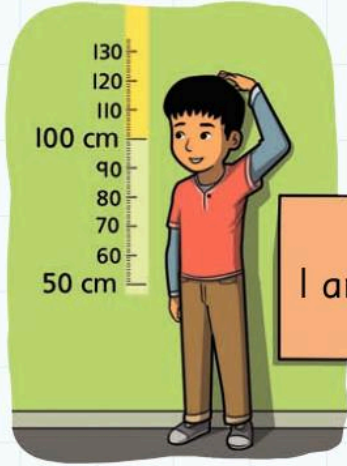
We found out that _____.

Draw or write what you found out.

12 Handling data

Review

All about my class



I am 122 cm tall.

I have
4 brothers.

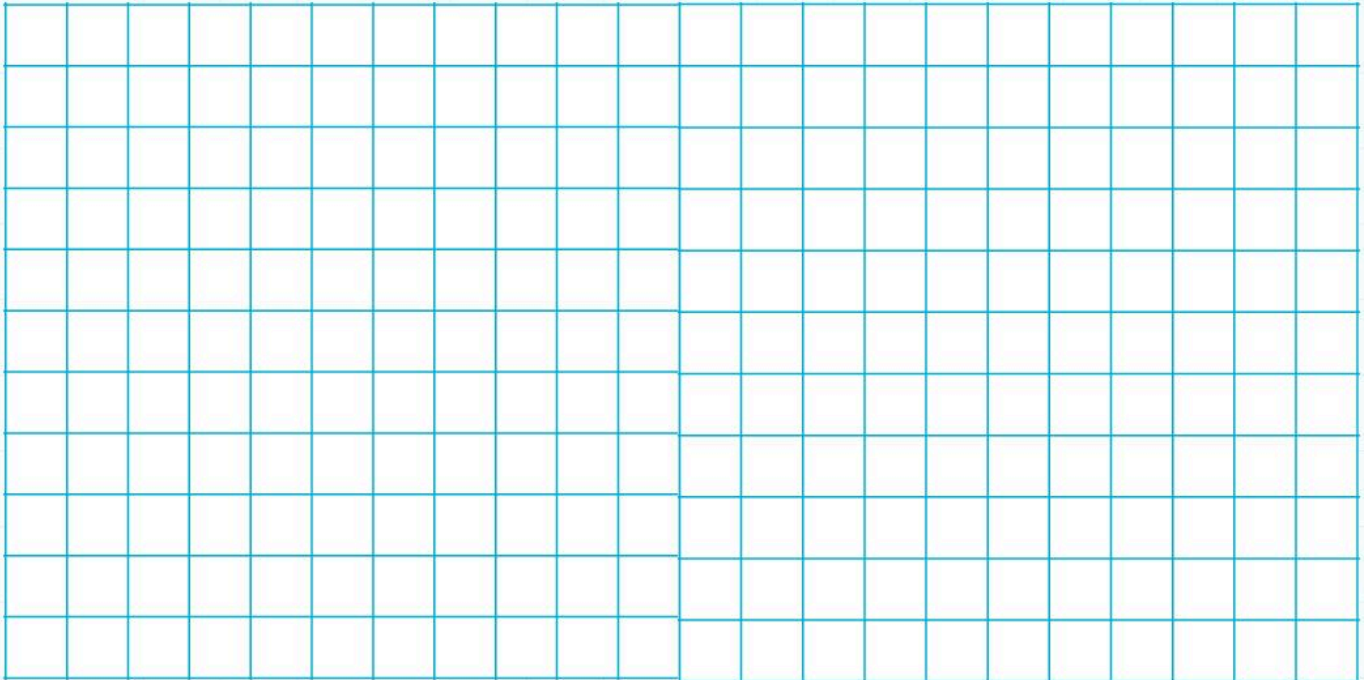
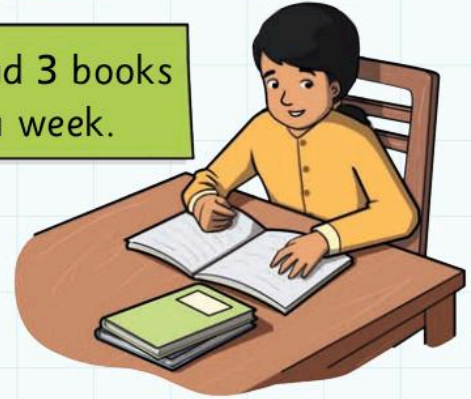


My favourite
food is soup.

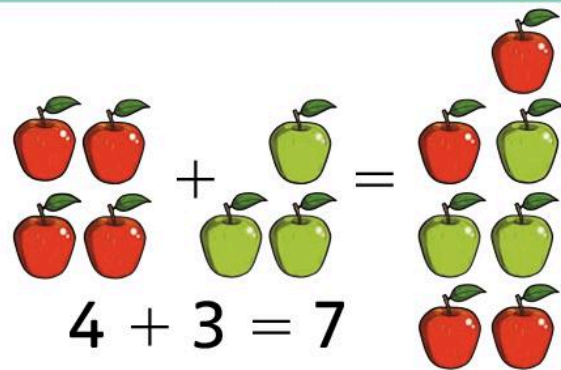
I have
3 siblings.



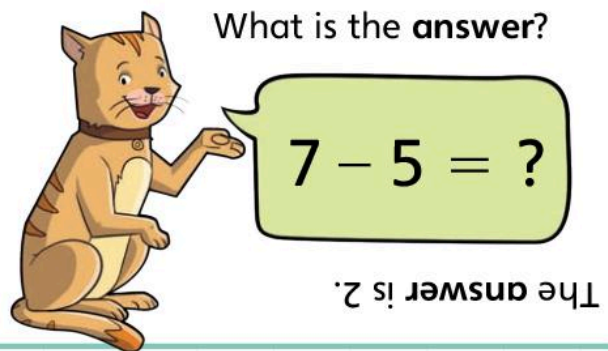
I read 3 books
a week.



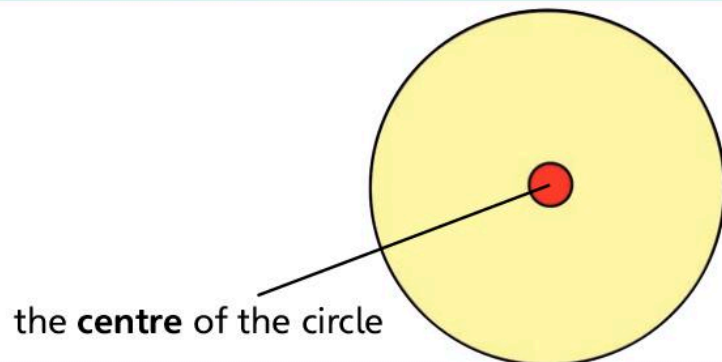
add



answer

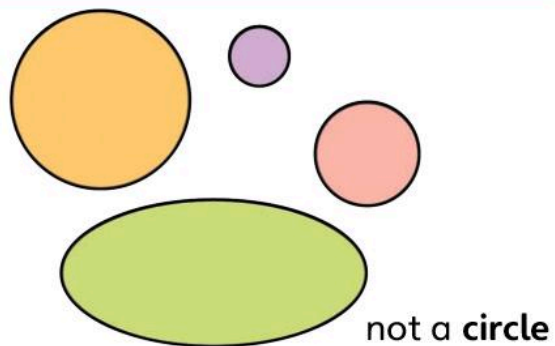


centre



circle

3 circles



coin



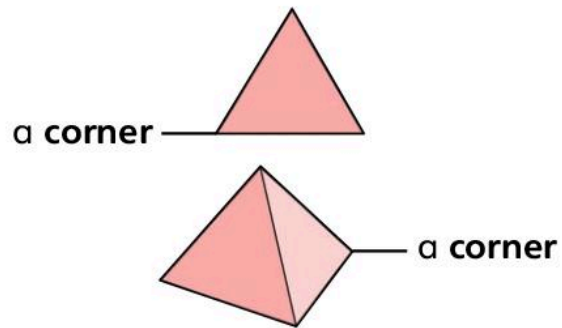
All of these are **coins**.

cone



All of these are **cones**.

corner

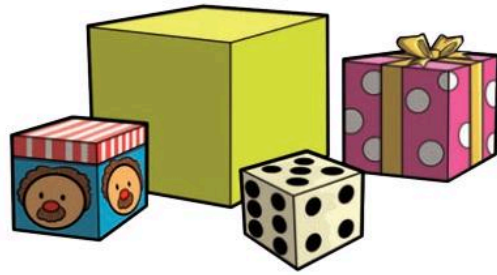


count

2, 4, 6, 8, 10, 12, ...
counting on in twos

13, 12, 11, 10, 9, ...
counting back in ones

cube



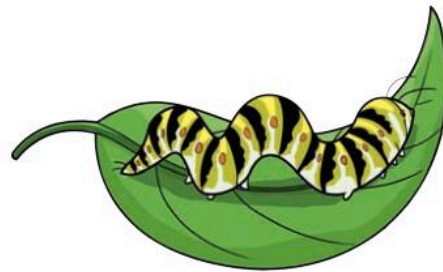
All of these are **cubes**.

cuboid



All of these are **cuboids**.

curved



Here are lots of **curved** lines.

cylinder



All of these are **cylinders**.

day

depth



depth

digit

14

The number 14 has two **digits**: 1 and 4.

It is a two-**digit** number.

double

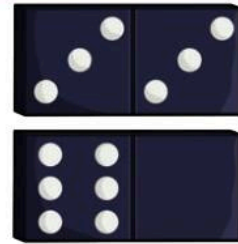


$$5 \times 2 = 10$$



Double 5 is 10.

equal



$3 + 3 = 6$
3 + 3 are equal to 6.

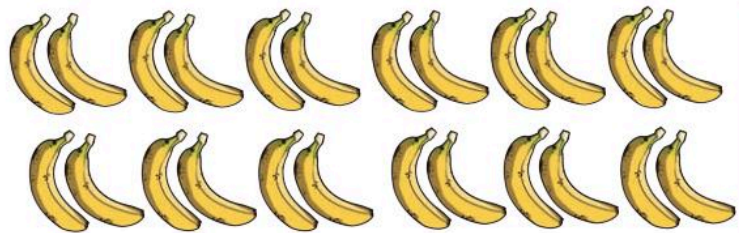
estimate

Estimate the number of marbles in this bag.



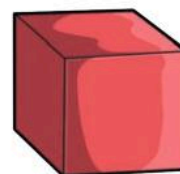
A good estimate is 30.

even



'2 4 6 8 10 12' are even numbers.

face



flat face



curved face

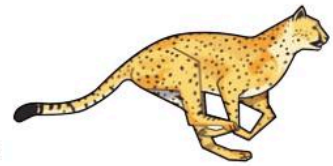
fast



fast

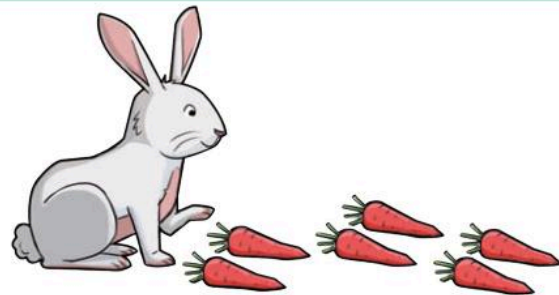


faster



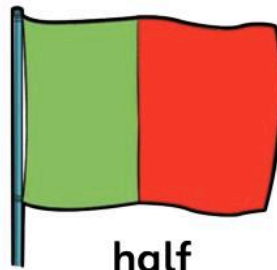
fastest

group

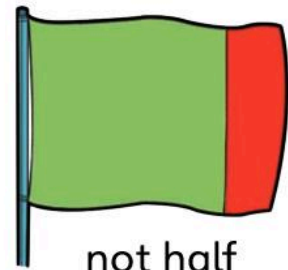


groups of 2

half



half



not half

heavy



heavy

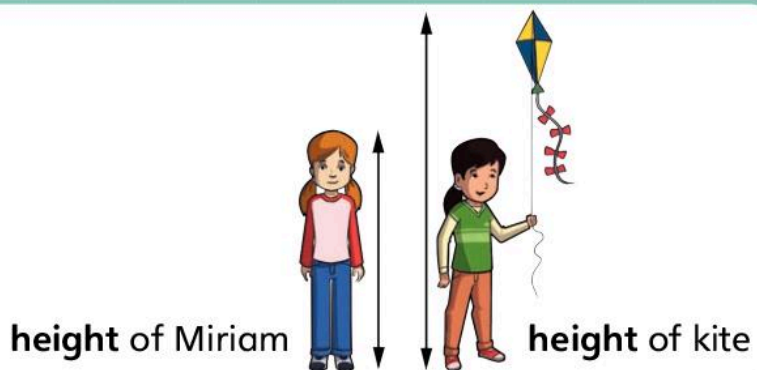


heavier

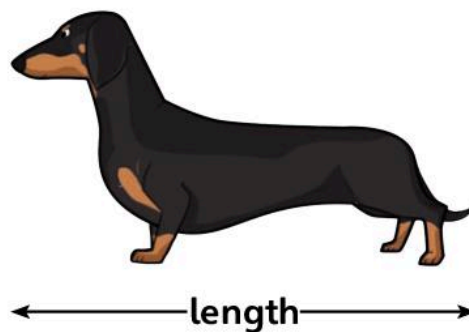


heaviest

height



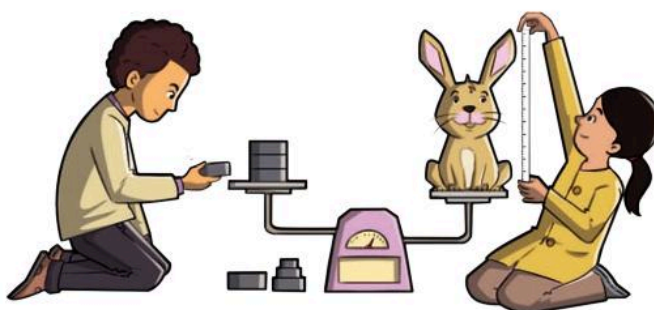
length



light

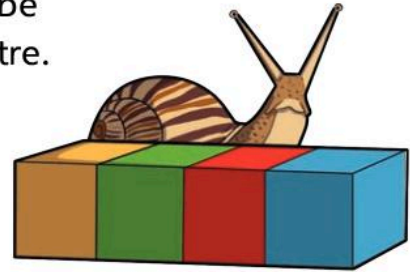


measure



metre

The side of each cube measures 1 centimetre.



100 cubes measure 1 metre.

minus



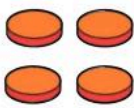

$$7 - 4 = 3$$

money

month

| | | | |
|-----------|----------|----------|----------|
| January | February | March | April |
| May | June | July | August |
| September | October | November | December |

number

4 counters   four spots

$3 + 1 = 4$   4 candles

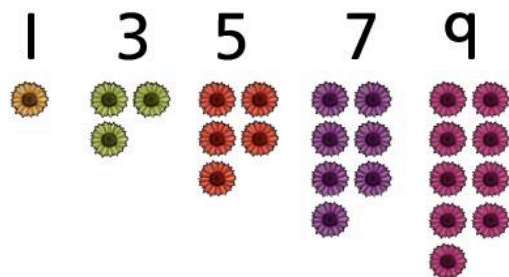
We use **numbers** to count and calculate.

number sentence

6 take away
2 leaves 4.

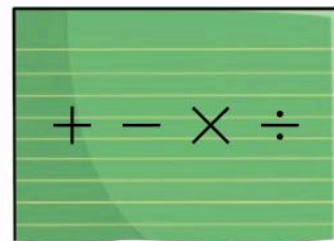
3 more than
5 makes 8.

odd



odd numbers

operation



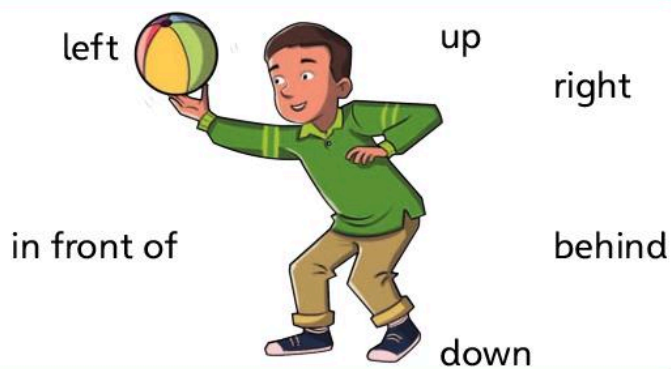
The signs tell you which **operation** to use.

plus

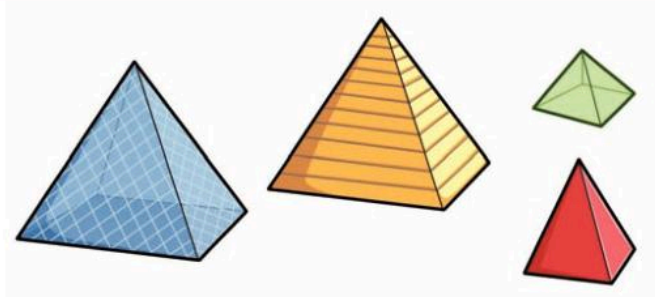


$$2 + 4 = 6$$

position

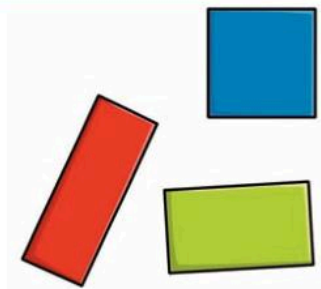


pyramid



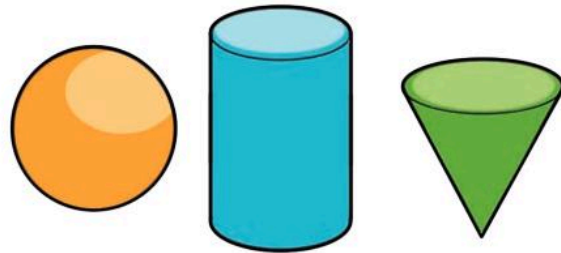
All of these are **pyramids**.

rectangle



All of these are **rectangles**.

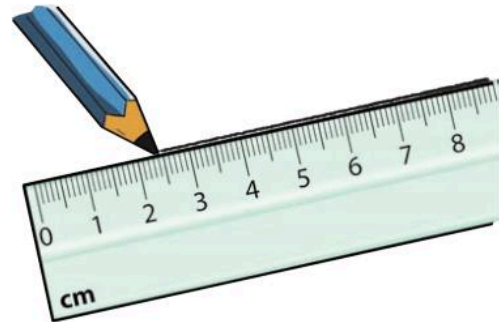
round



round sides

round edges

ruler



season

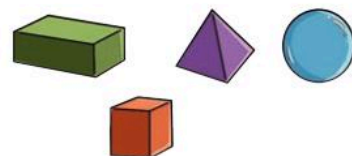


shape

flat shapes



solid shapes



A shape can be flat or solid.

sign

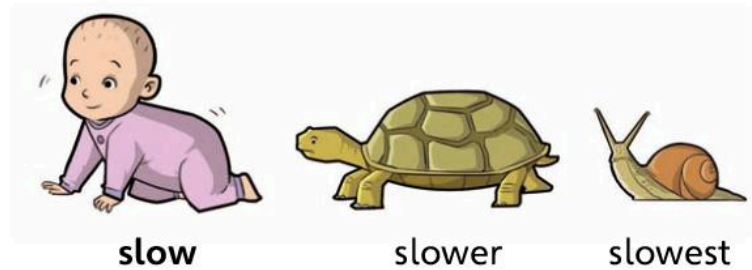
| | | |
|-------------|-------------|----------|
| + | - | × |
| add | subtract | multiply |
| sign | sign | sign |
| ÷ | = | |
| divide sign | equals sign | |

All of these are signs.

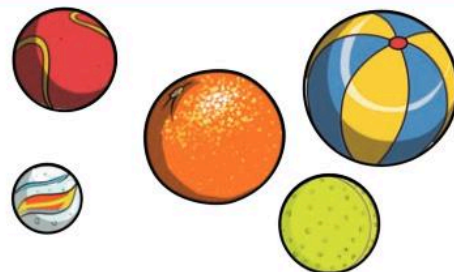
size



slow

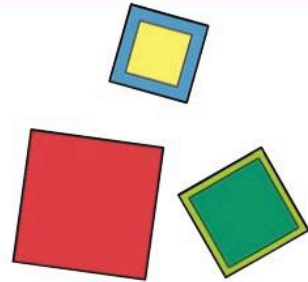


sphere



All of these are **spheres**.

square



All of these are **squares**.

subtract

$$6 - 2 = 4$$

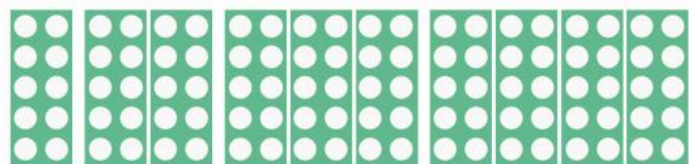


This is a **subtraction**.

teen number

13 14 15 16
17 18 19

tens



10 20 30 40

All of these are **tens** numbers.

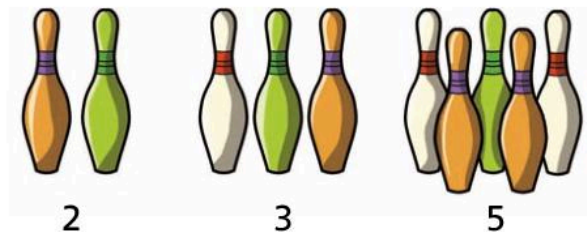
time



The **time** is half past nine.

total

What is the **total** of these numbers?



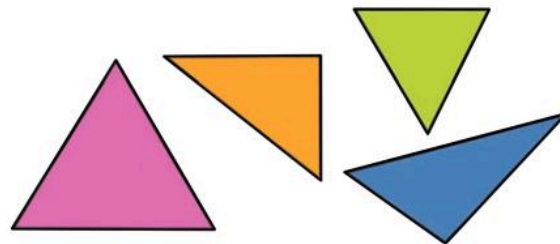
2

3

5

The **total** is 10.

triangle



All of these are **triangles**.

unit

5 is in the **units** column in the number 125.



hundreds

tens

units

week

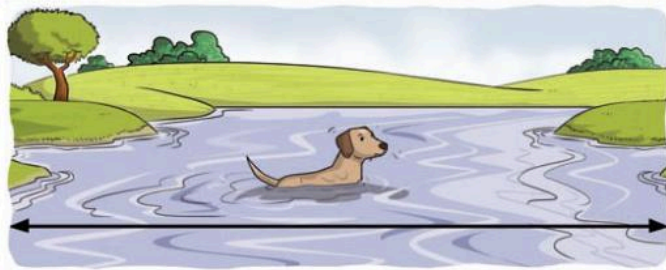
the days of the week



| |
|-----------|
| Monday |
| Tuesday |
| Wednesday |
| Thursday |
| Friday |
| Saturday |
| Sunday |



width



the **width** of a river

year

1 year = 365 days
1 year = 12 months

zero



Blues 2
Reds 0

Oxford International Primary Maths

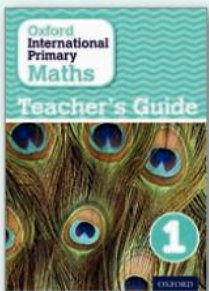
1

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