

Mathletics

Series

A

Student



# Numbers and Patterns

My name \_\_\_\_\_



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# Series A – Numbers and Patterns

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Date completed

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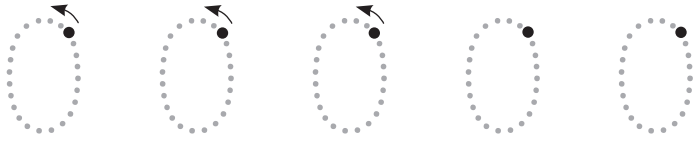
- equality \_\_\_\_\_
- inequality \_\_\_\_\_


Series Author:

Rachel Flenley

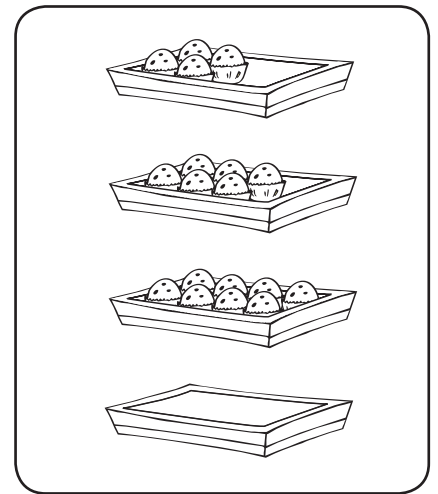
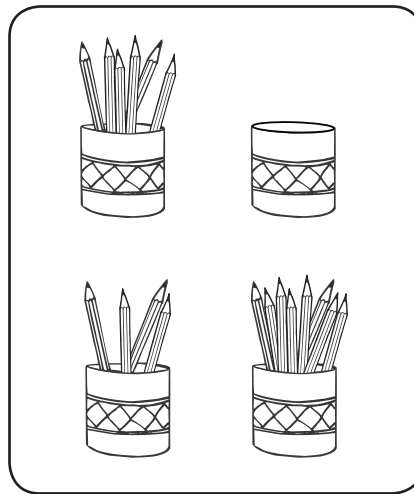
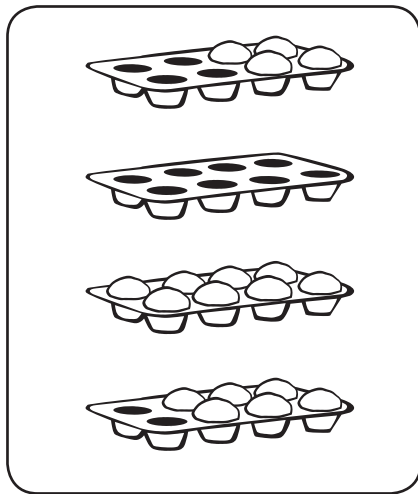
# Numbers to ten – 0 (zero)

- 1   Say and trace.

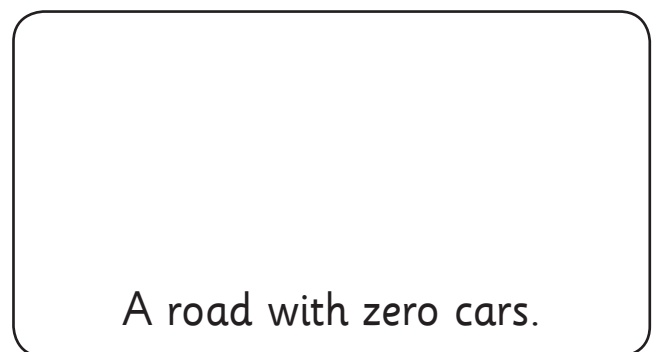
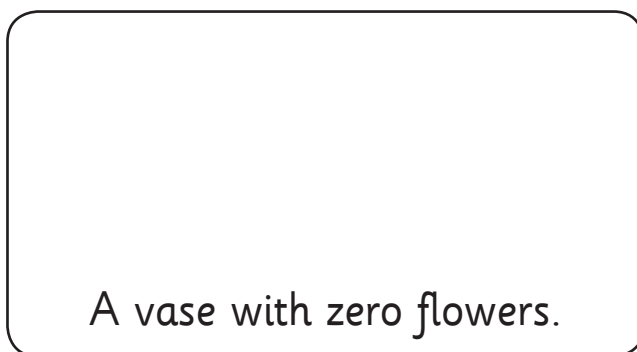


- 2  What are some words you know that also mean zero?  
Write them or tell a partner.

- 3  Loop the container with nothing in it.

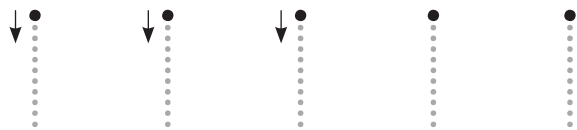


- 4  Draw these.

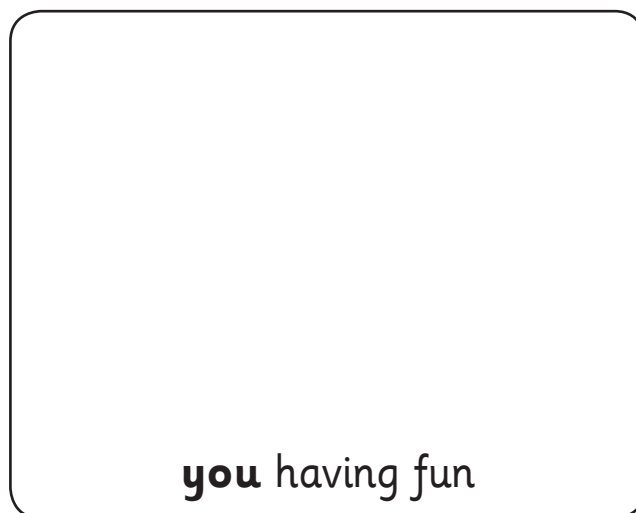
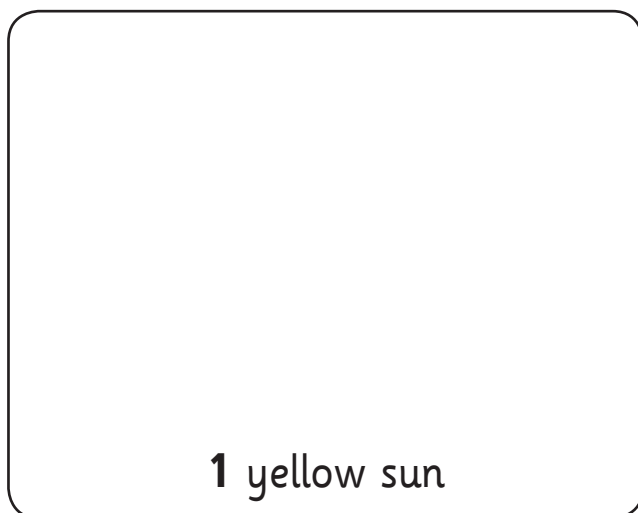


# Numbers to ten – 1 (one)

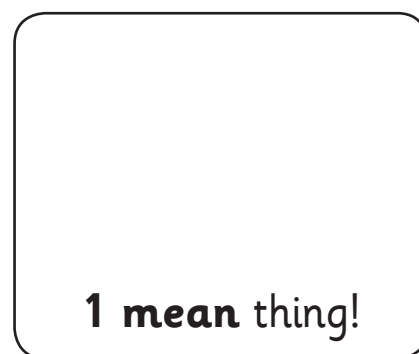
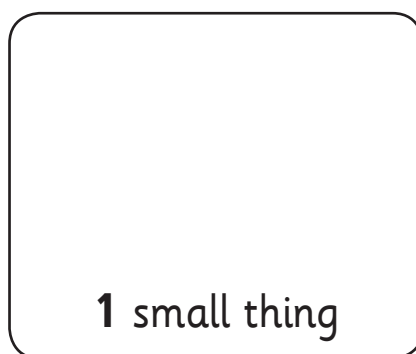
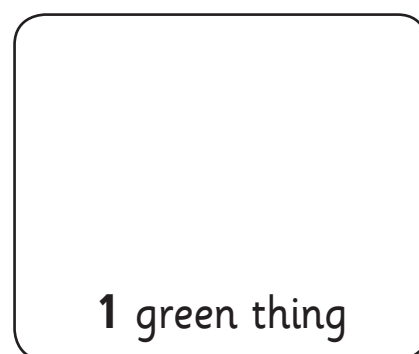
1   Say and trace.



2  Draw these.

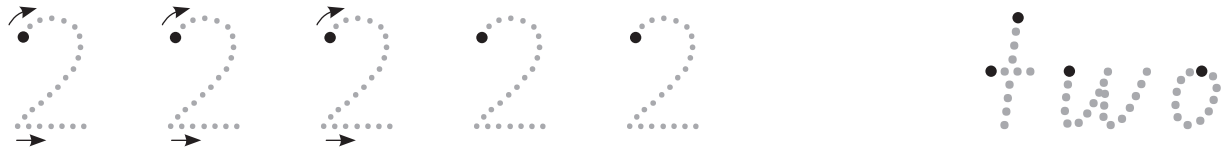



3   Find and draw.

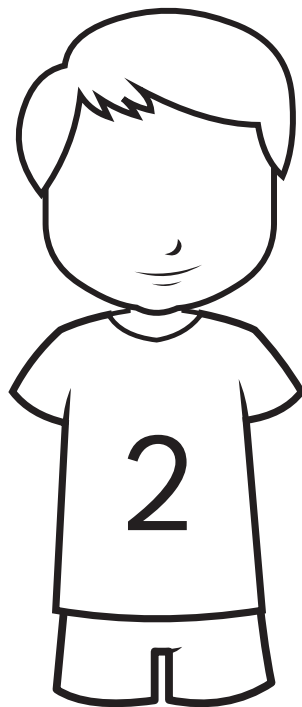



# Numbers to ten – 2 (two)








1   Say and trace.



2  What do we have 2 of on our bodies? Finish the picture.



3  I have 

		<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>		but only	


# Numbers to ten – 3 (three)

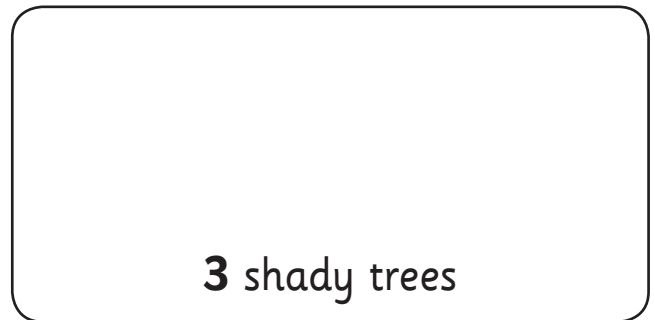
1   Say and trace.



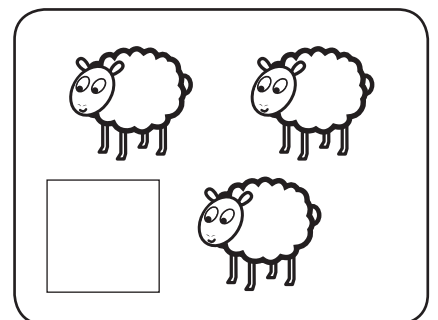
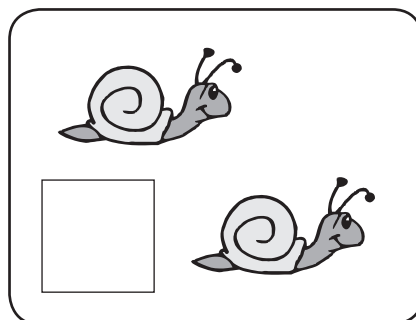
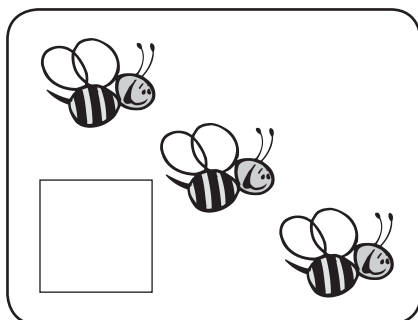
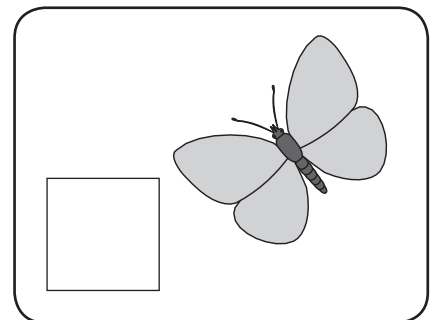
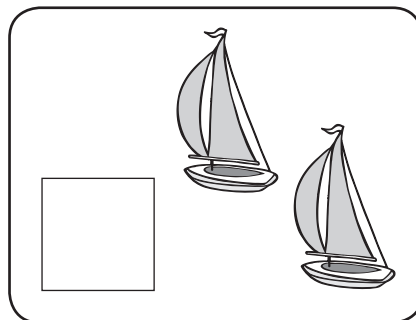
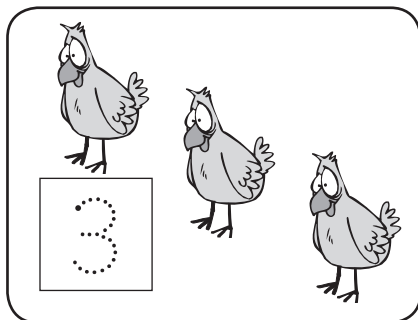
2  Loop the words that say *three*.

*three tree thre three here*

3  Draw these.



4  Count and write the number.







# Numbers to ten – 4 (four)

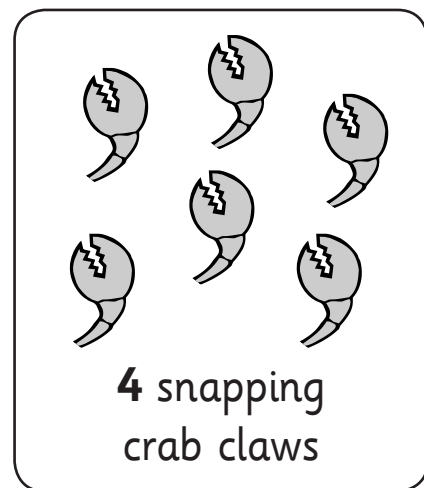
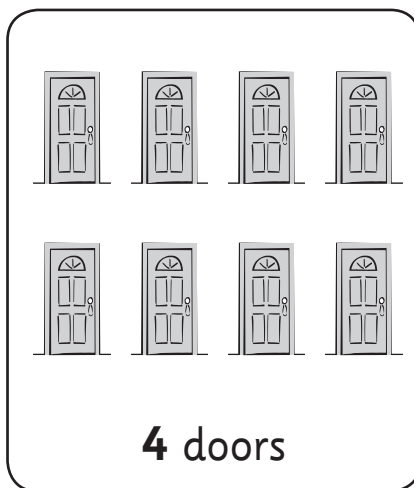
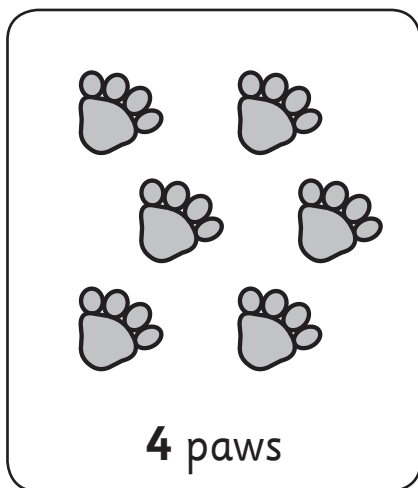
1   Say and trace.




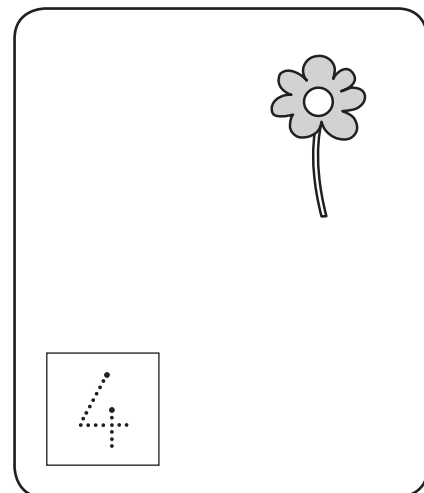
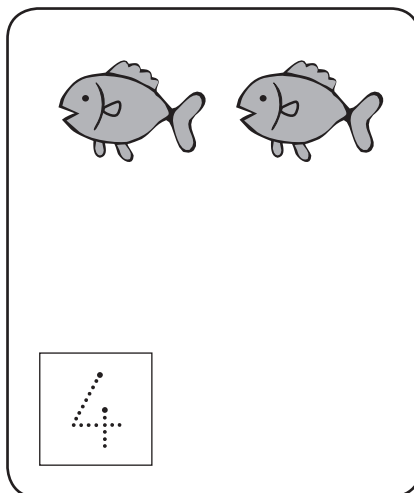
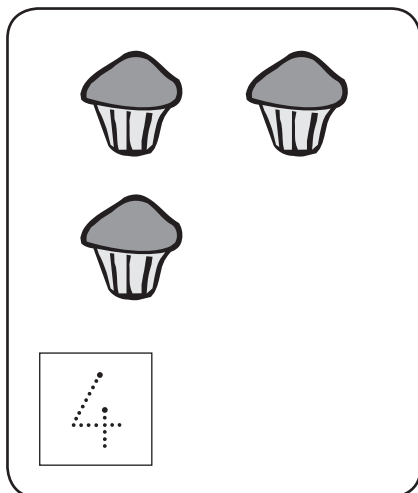
2  Loop the words that say *four*.

*four*      *for*      *four*      *our*      *four*

3  Loop these.

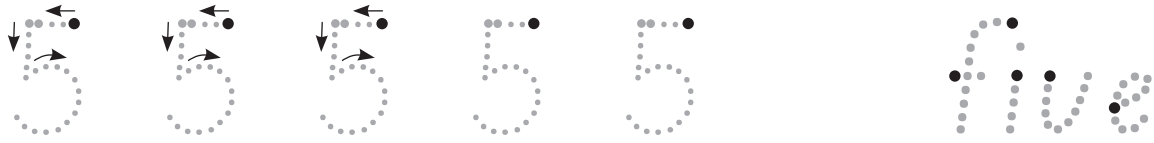


4  Draw more to make 4.



# Numbers to ten – 5 (five)

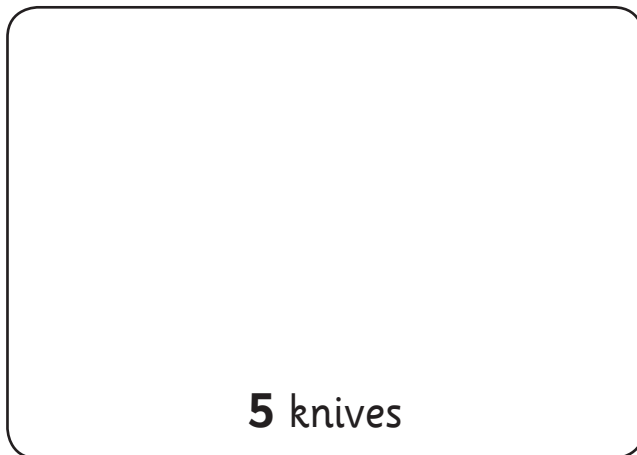
1   Say and trace.



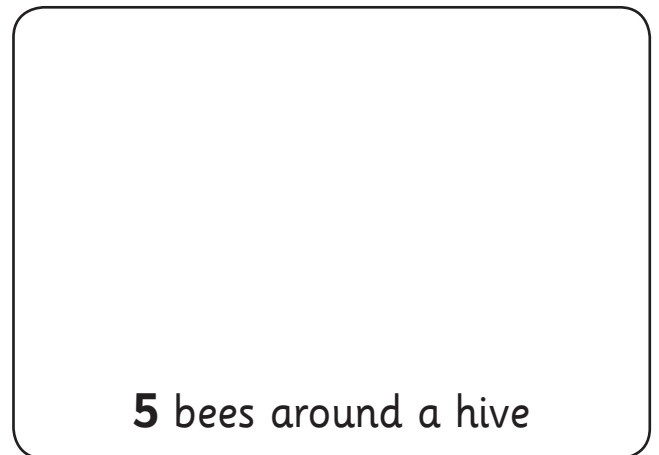
2  Fill in the missing letters.

f\_\_ve    \_\_ive    fi\_\_e    fiv\_\_

3  Draw these.

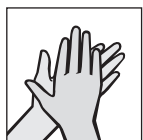


5 knives



5 bees around a hive

4  Tick the activities once you have done them.



5 times



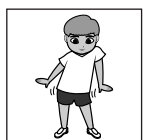
5 times



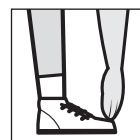
5 times



5 times



5 times



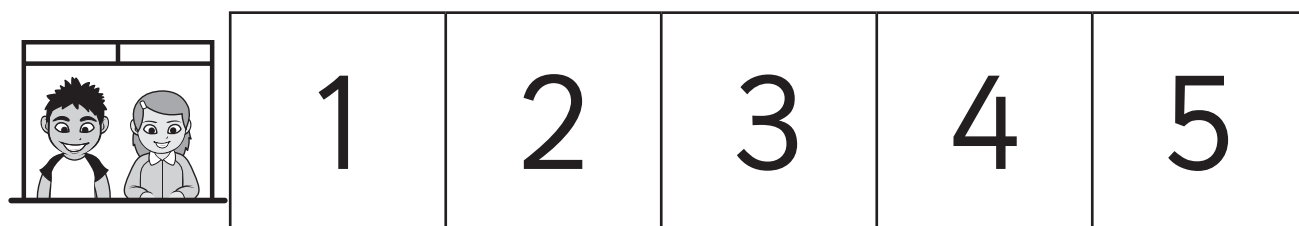
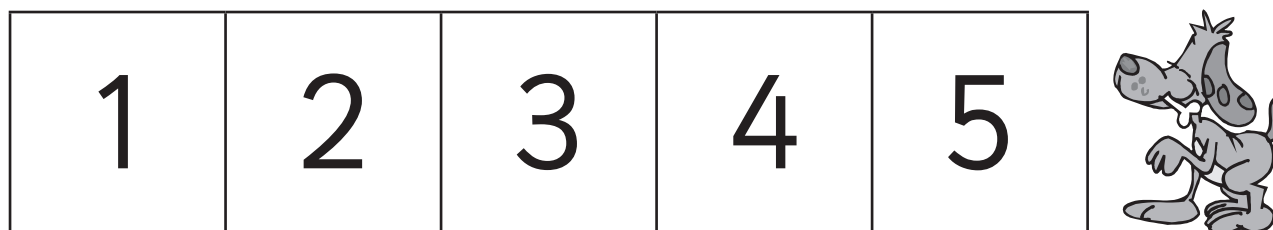
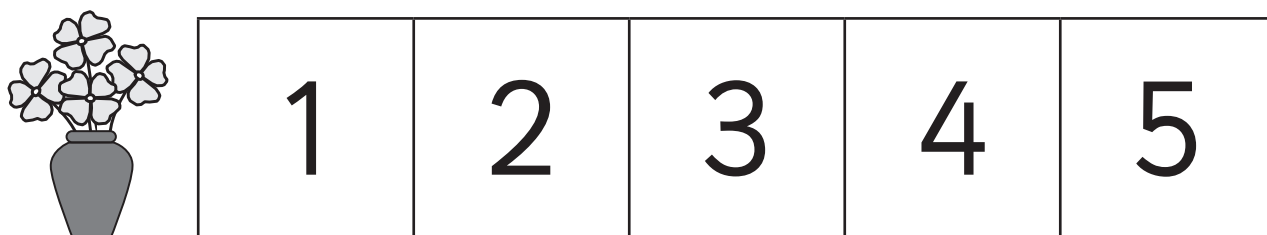
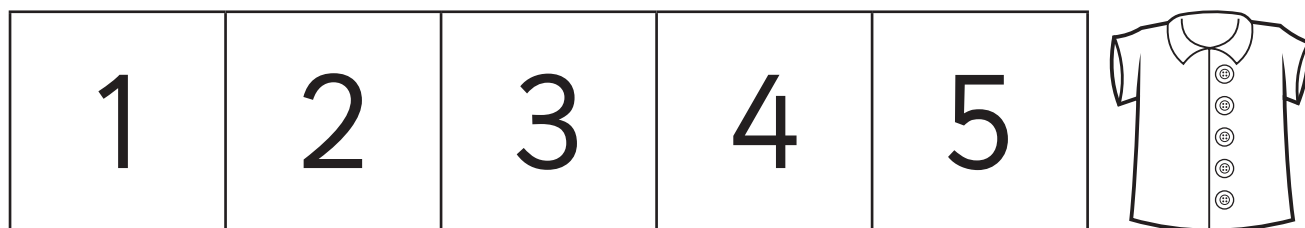
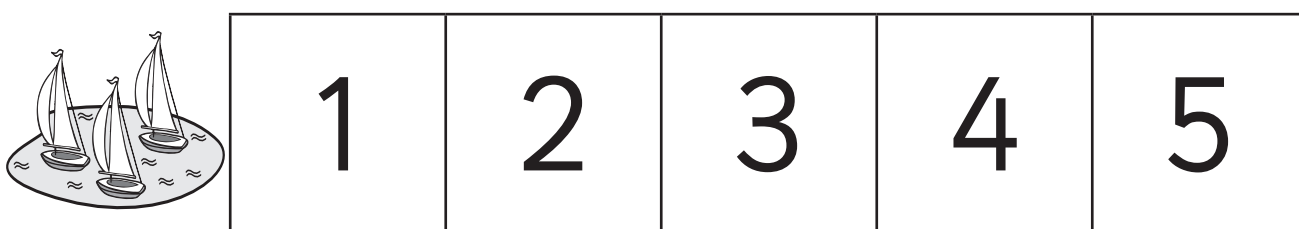
5 times

# Numbers to ten – one to five

1   Say and trace.

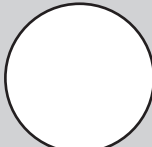
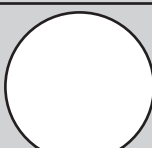


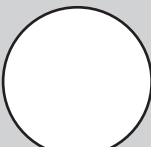
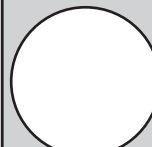
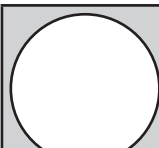
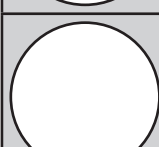
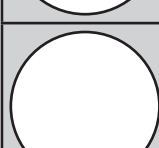
2  Count and loop the matching number.




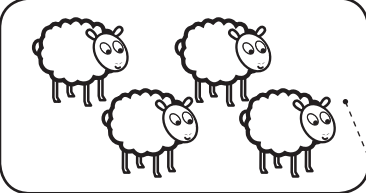
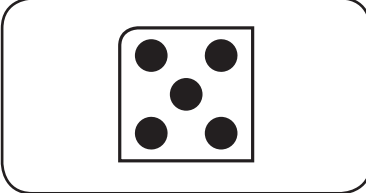
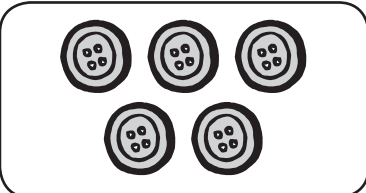
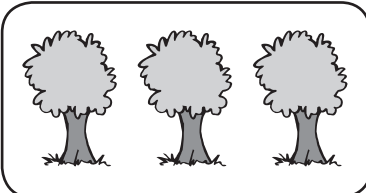
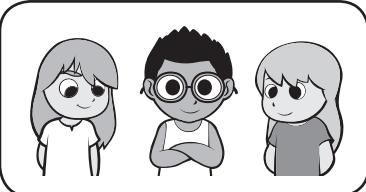
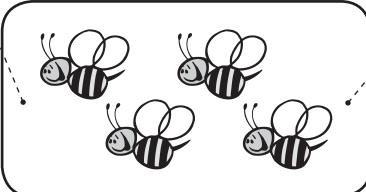
# Numbers to ten – one to five

1  Which numbers are missing? Write them.

1	2
	3
	
	

	3	4	
1			
		5	
			
			
	1		

2  Draw lines to match the equal groups and their number.

		3
		4
		5

*Note: Dotted lines connect the 4 sheep to the number 5, and the 5 bees to the number 3.*

# Numbers to ten – one to five

You will need:



a partner



scissors



glue stick

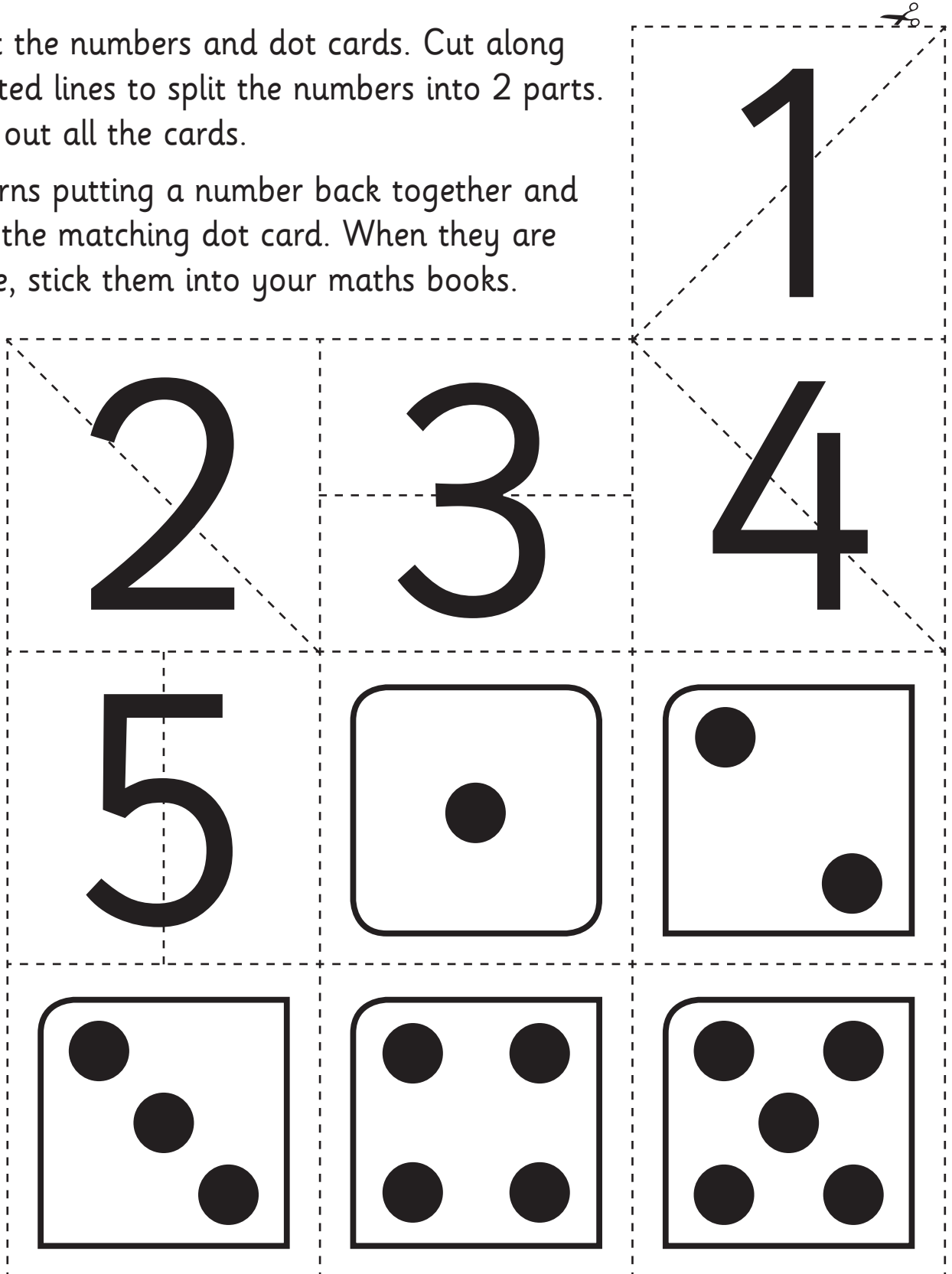


copy

## What to do:

Cut out the numbers and dot cards. Cut along the dotted lines to split the numbers into 2 parts. Spread out all the cards.


Take turns putting a number back together and finding the matching dot card. When they are all done, stick them into your maths books.

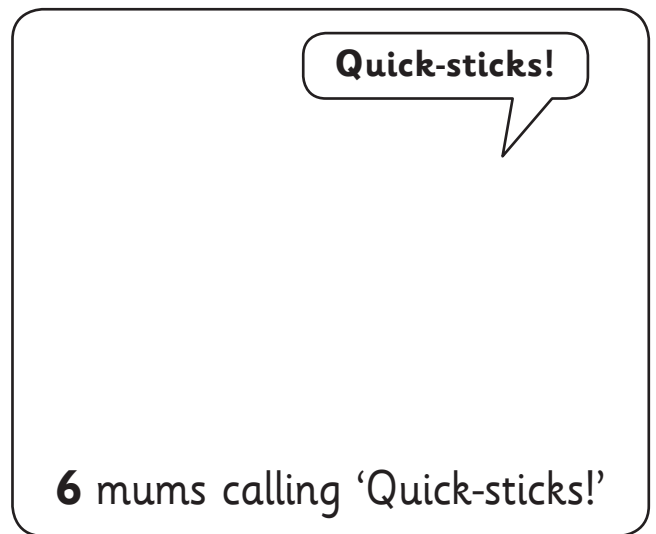



# Numbers to ten – 6 (six)

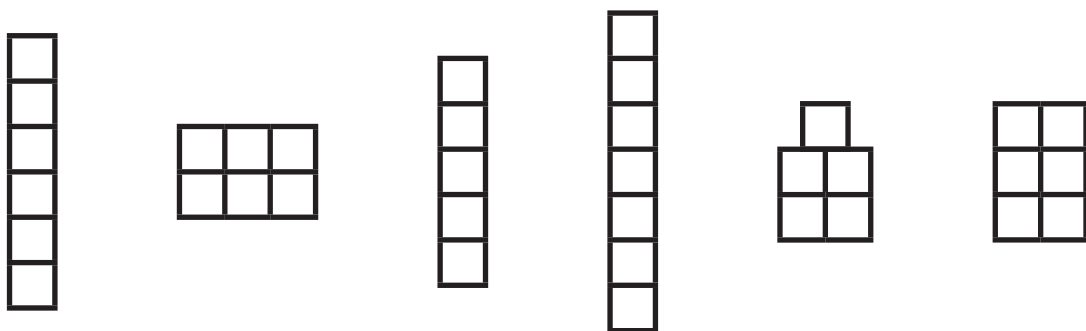
1   Say and trace.





2  Draw these.



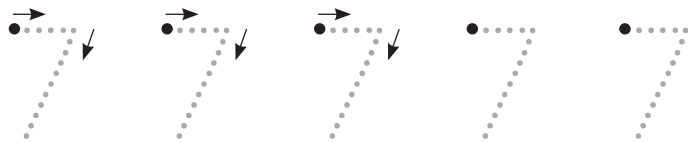
3  Loop the block towers made with 6 blocks.



4   Find a partner and a die. Take turns rolling the die. The first person to roll 3 sixes is the winner!

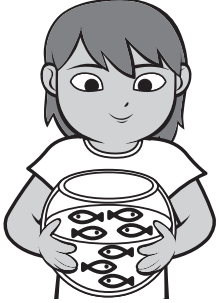
# Numbers to ten – 7 (seven)

1   Say and trace.



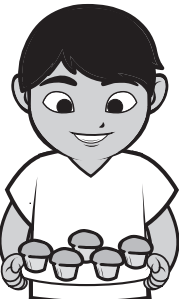
seven

2  Do these kids have 7 things? Colour **yes** or **no**.




Do I have 7?

yes  no



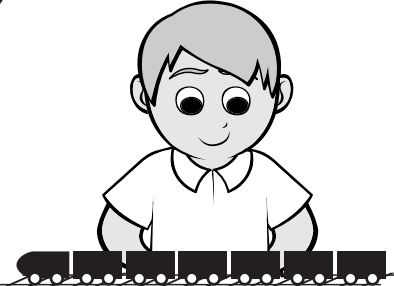
Do I have 7?

yes  no



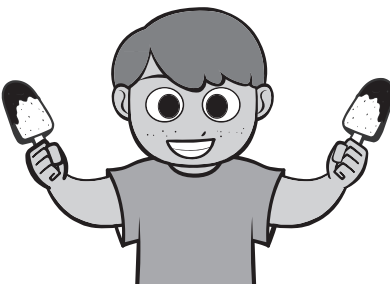
Do I have 7?

yes  no



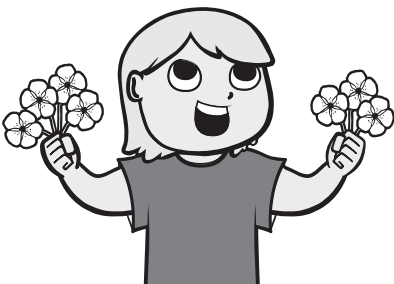
Do I have 7?

yes  no



Do I have 7?

yes  no



Do I have 7?

yes  no

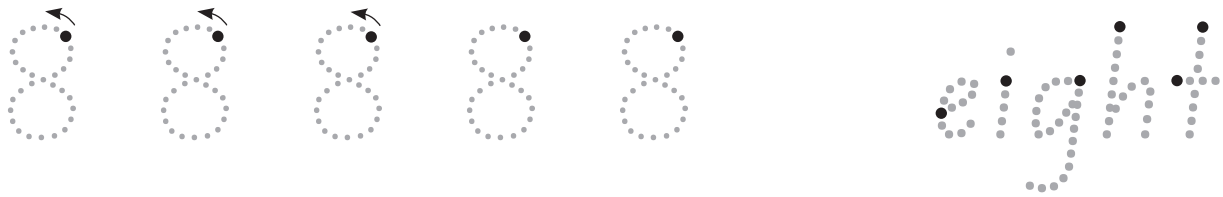
3  Draw more dots to make 7.

●	●			
●	●			

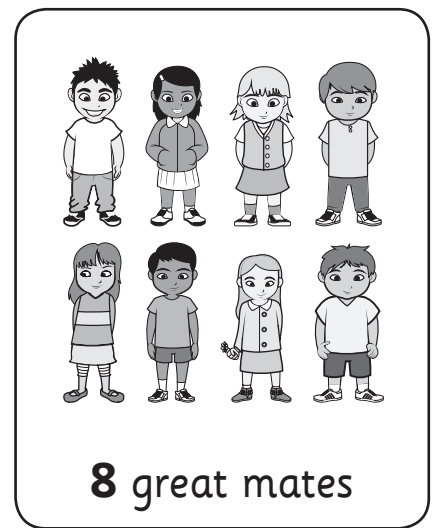
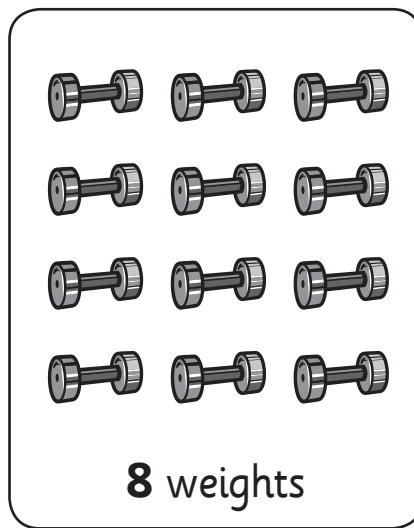
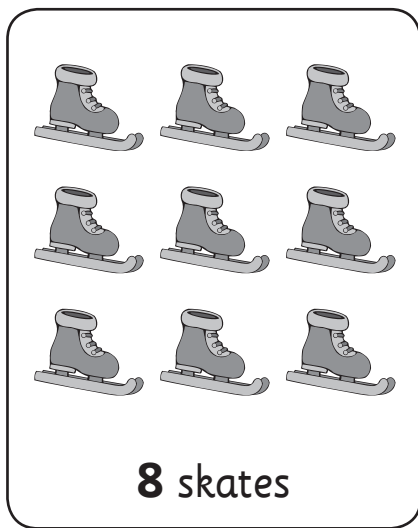
				●

# Numbers to ten – 8 (eight)

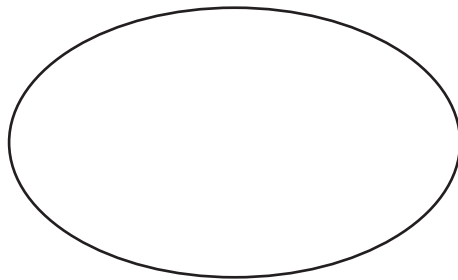
1   Say and trace.



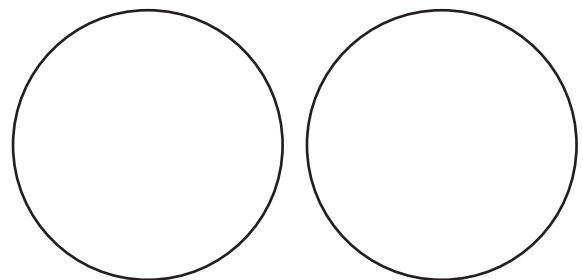
2  Loop 8.



3  Draw apples.

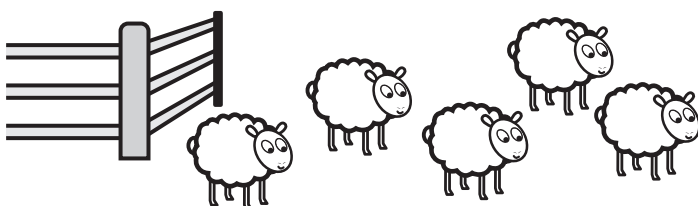


Draw **8** apples on the plate.



Draw **8** apples altogether.  
Put some on each plate.

4  Are there 8 sheep at the gate? Draw more if you need to.




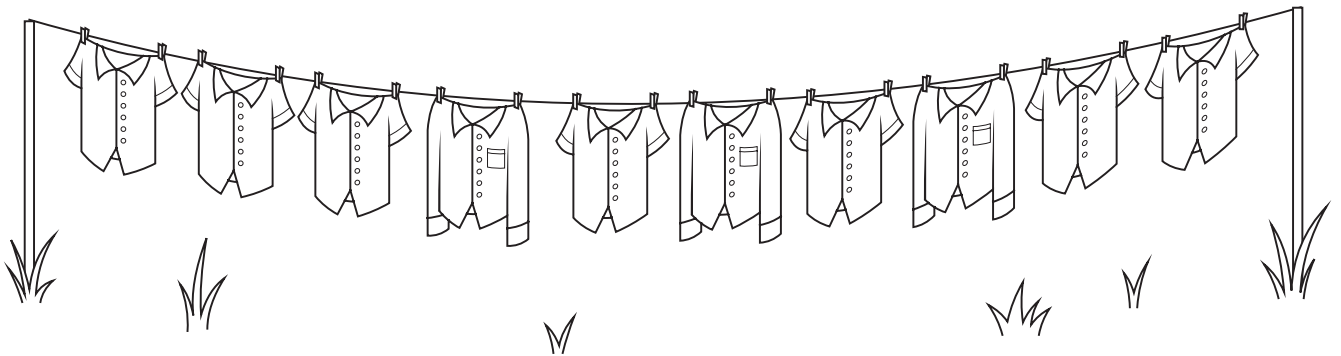


# Numbers to ten – 9 (nine)

1   Say and trace.



2  Colour 9 shirts on the line.



3   This is one way to arrange 9 counters. This is another way.

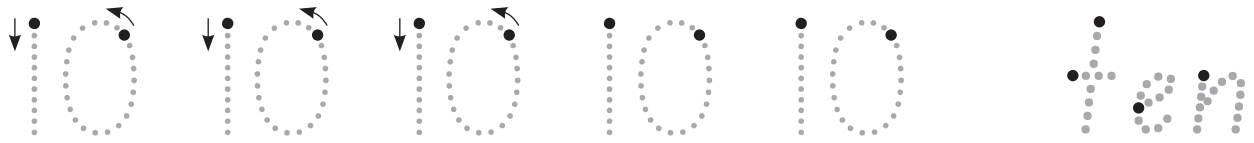


Work with your partner to find some other ways.

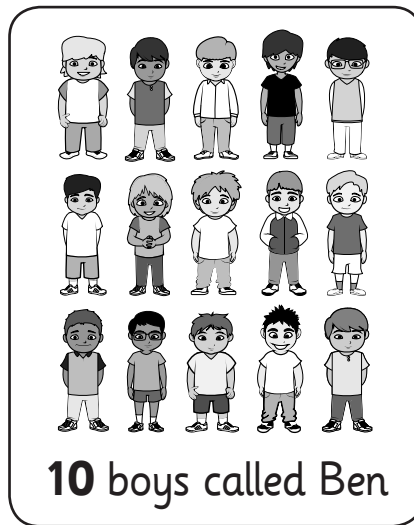
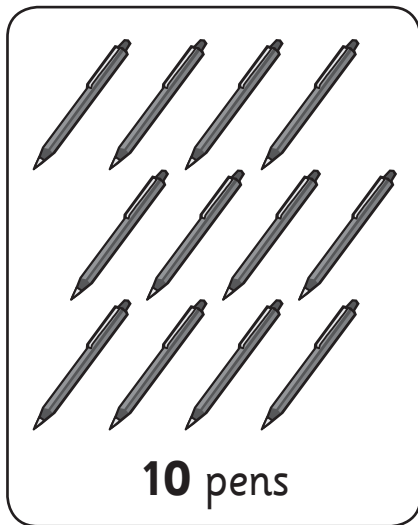
Draw them here.


# Numbers to ten – 10 (ten)

1   Say and trace.



2  Loop these.



3   Find these things around your room. Put a tick each time you find one. Write 10 when you have 10 ticks.

**10 circles**



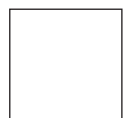
**10 red things**



**10 squares**



**10 green things**



# Numbers to ten – before and after

- 1  Fill in the missing numbers on the track.

1	2			5				9	
---	---	--	--	---	--	--	--	---	--

- 2  Write the numbers that come **before** and **after**.

before		after
	2	


before		after
	8	

before		after
	6	

before		after
	3	

before		after
	5	

before		after
	9	

- 3  Find a partner. Take turns giving each other a problem such as 'What number comes **before** 10?' If they are right, give them a counter. Play until you both have 5 counters.



# Numbers to ten – count on

- 1  Count on to 10.


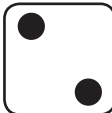




5	6				10
---	---	--	--	--	----

3	4			7			10
---	---	--	--	---	--	--	----


7			10
---	--	--	----

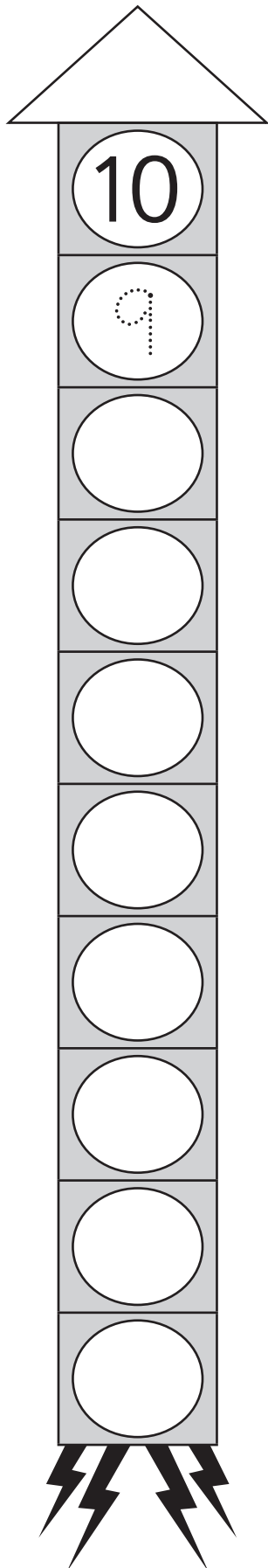
- 2   Find a partner. Take turns rolling the die. Together, count on to 10 from the number you roll. Tick the die below when you have counted on from its number. Play until you have counted on from every number.




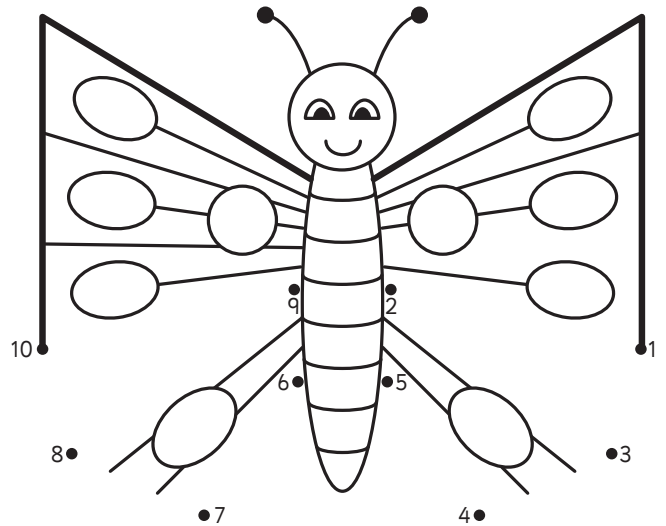
					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# Numbers to ten – counting backwards

- 1  Help the rocket blast-off.  
Count back from 10.




- 2  Count back from 10 to complete this dot to dot.



- 3   When you are counting backwards, what number do you say **after**:

10	9
5	4
7	
3	
6	

# Numbers to ten – using five as a reference

1  Draw more dots to make each number. Finish the statement.



6 is  more than 5.



7 is  more than 5.



8 is  more than 5.



9 is  more than 5.



10 is  more than 5.

---

2  How many **less** than 5 is:




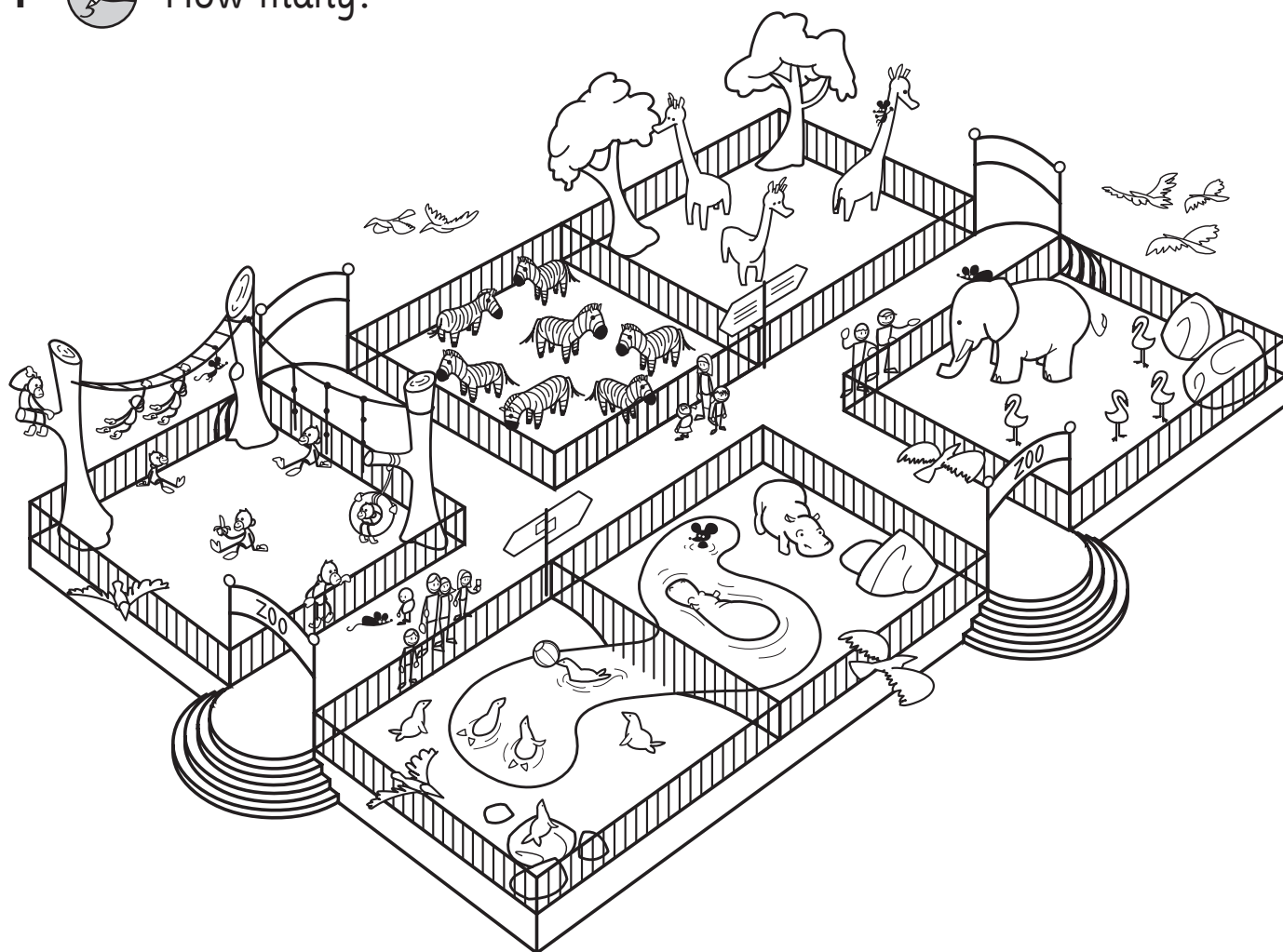
4 is  less than 5.



3 is  less than 5.

# Numbers to ten – how many?

1  How many?



 elephants

 birds

 hippos


 monkeys

 giraffes

 mice


 seals

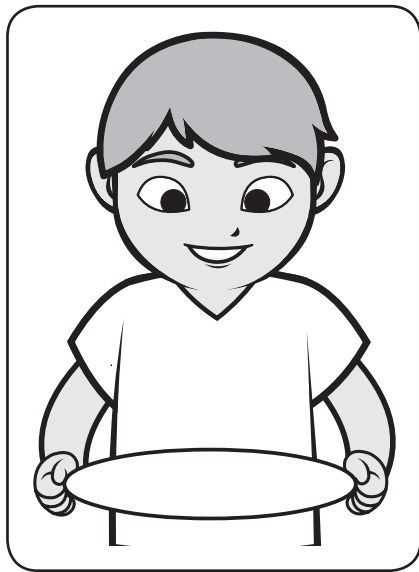
 flamingos

 zebras

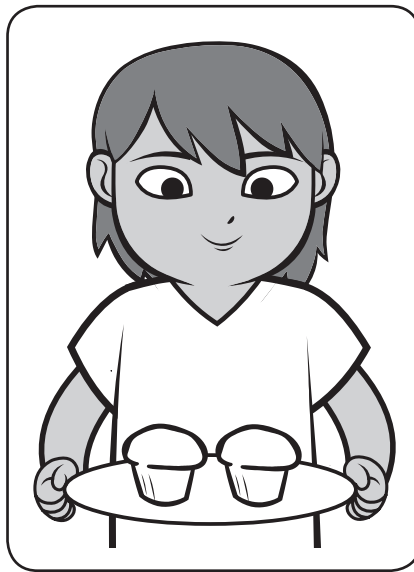
 people

# Numbers to ten – more than and less than

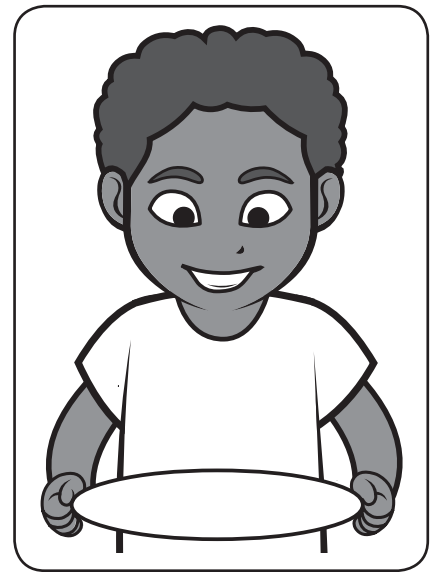
- 1  Anabelle has 2 cakes. Give Axel **more than** 2 cakes. Give Aman **less than** 2 cakes.



Axel

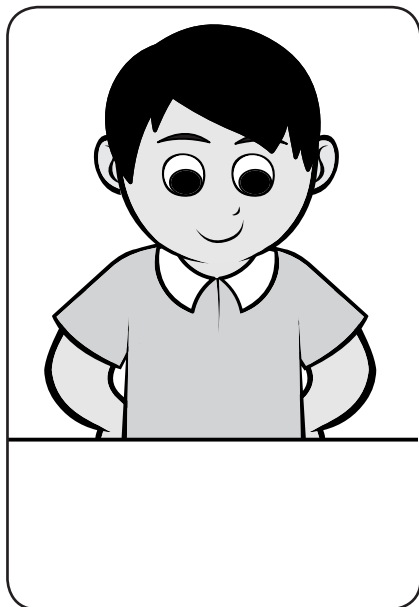


Anabelle

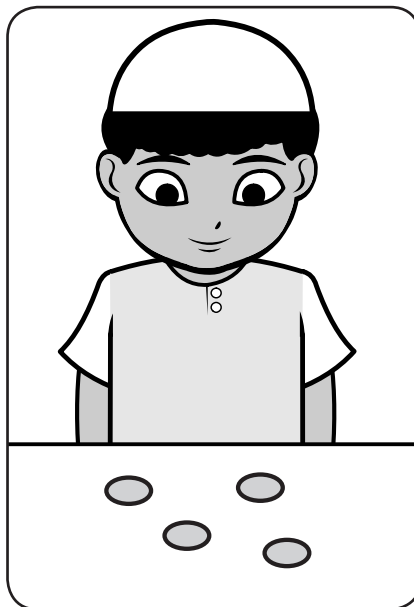


Aman

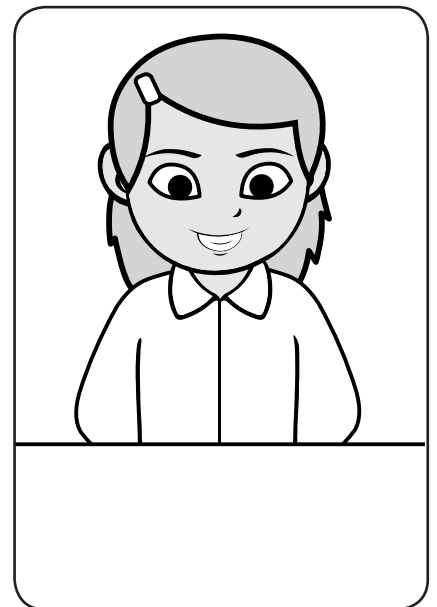
- 2  Hakim has 4 counters. Give Henry **more than** 4 counters. Give Hannah **less than** 4 counters.



Henry



Hakim



Hannah

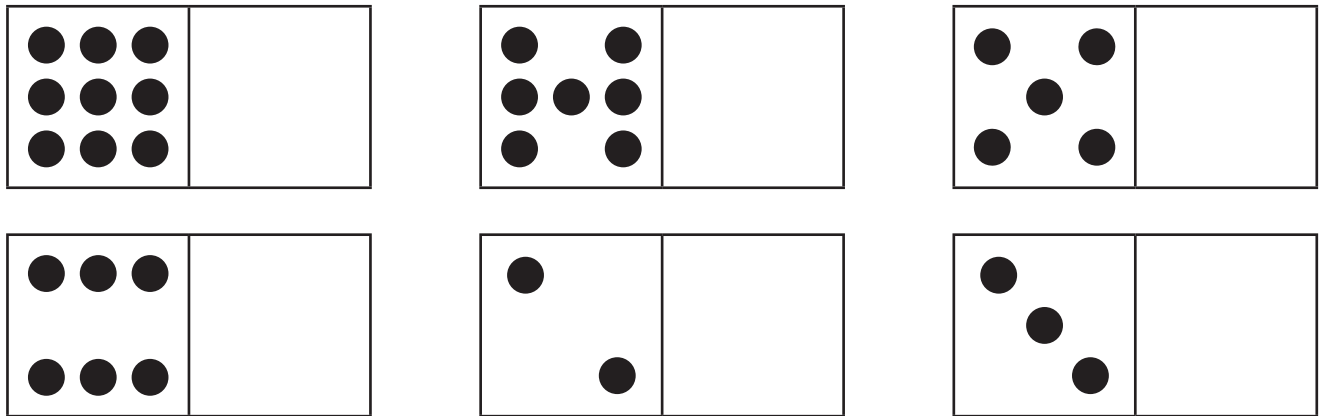


# Numbers to 20 – 11 and 12

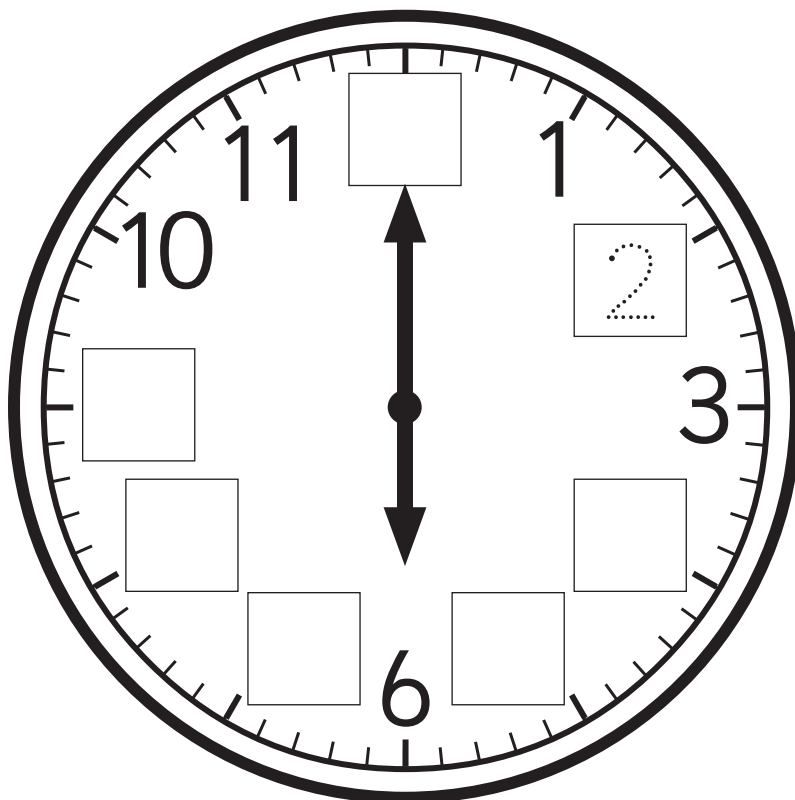
1   Say and trace.



2  Draw more dots so each domino has 11.

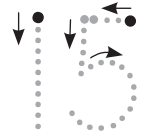
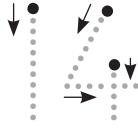
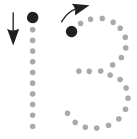


3  This clock seems to be missing some numbers. Add them.

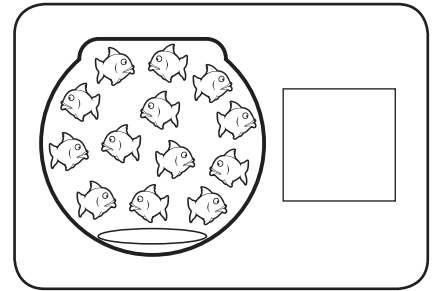
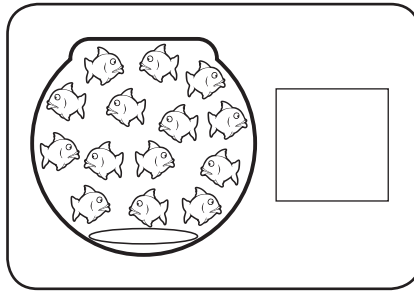
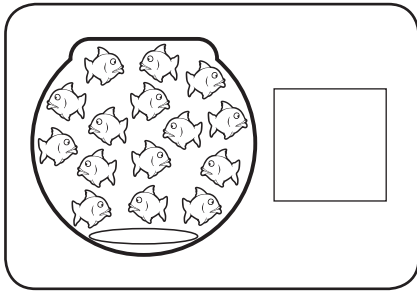




# Numbers to 20 – 13 to 15


- 1   Say and trace.

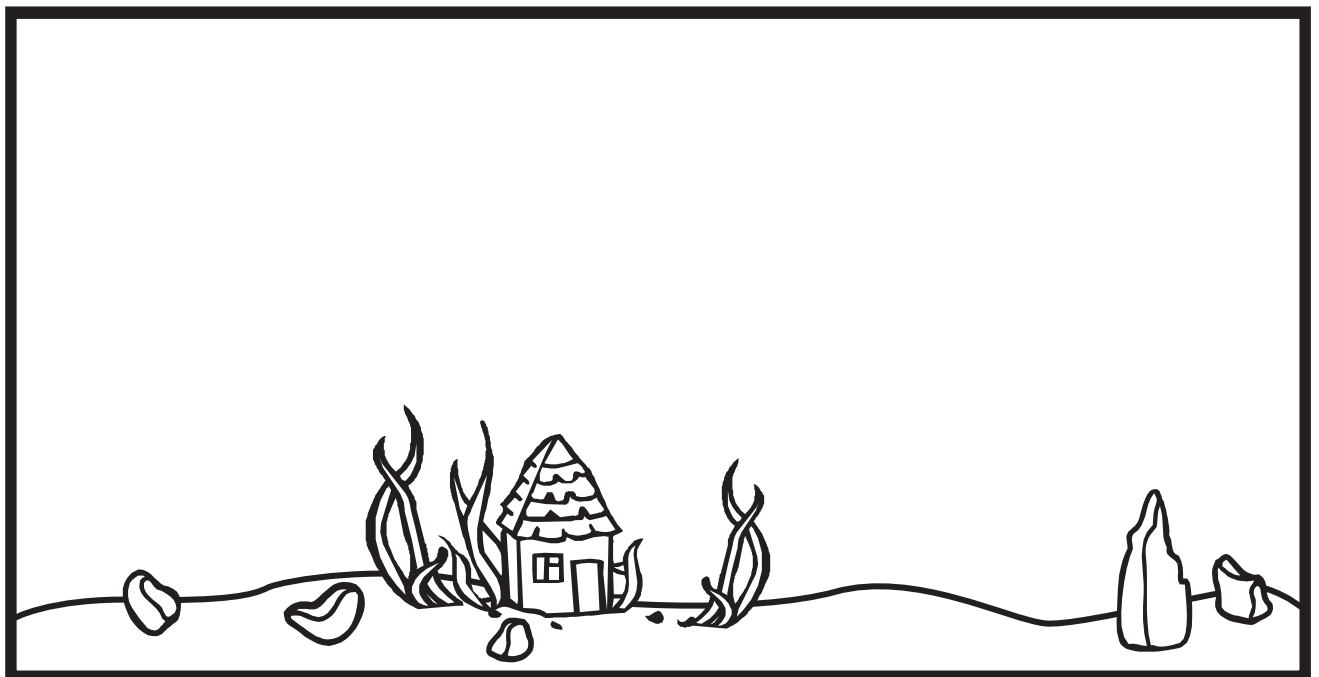


- 2  How many fish in each bowl? Colour as you count.




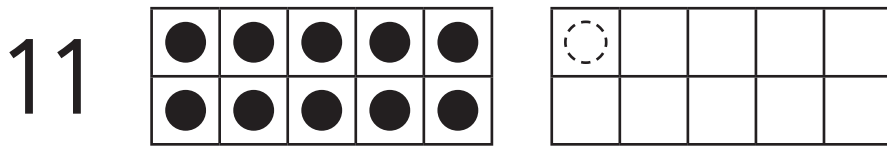
-  Colour the bowl with the **most** fish.
-  Loop the bowl with the **least** fish.

- 3  Use an inkpad, your thumb print and coloured pencils to put 15 beautiful fish into this tank.

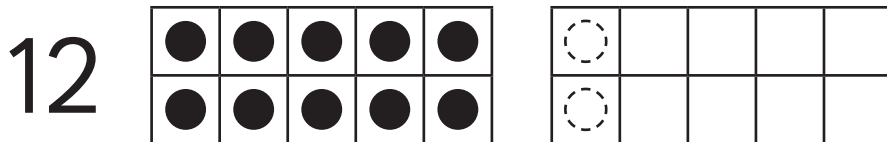


# Numbers to 20 – 11 to 15

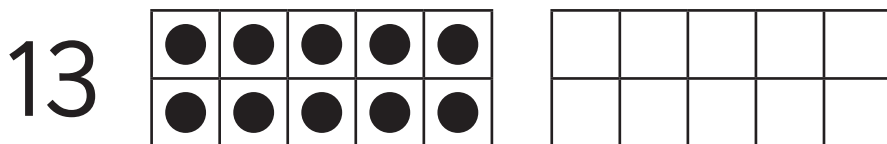
1  Draw more dots to make each number. Finish the statement.



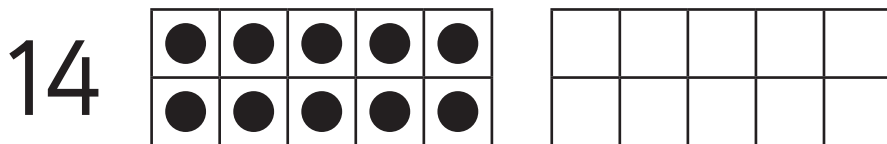
11 is  more than 10.



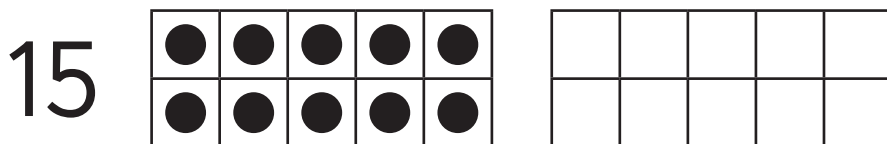
12 is  more than 10.




13 is  more than 10.



14 is  more than 10.



15 is  more than 10.

2  How many more than 10 do you think 16 is?

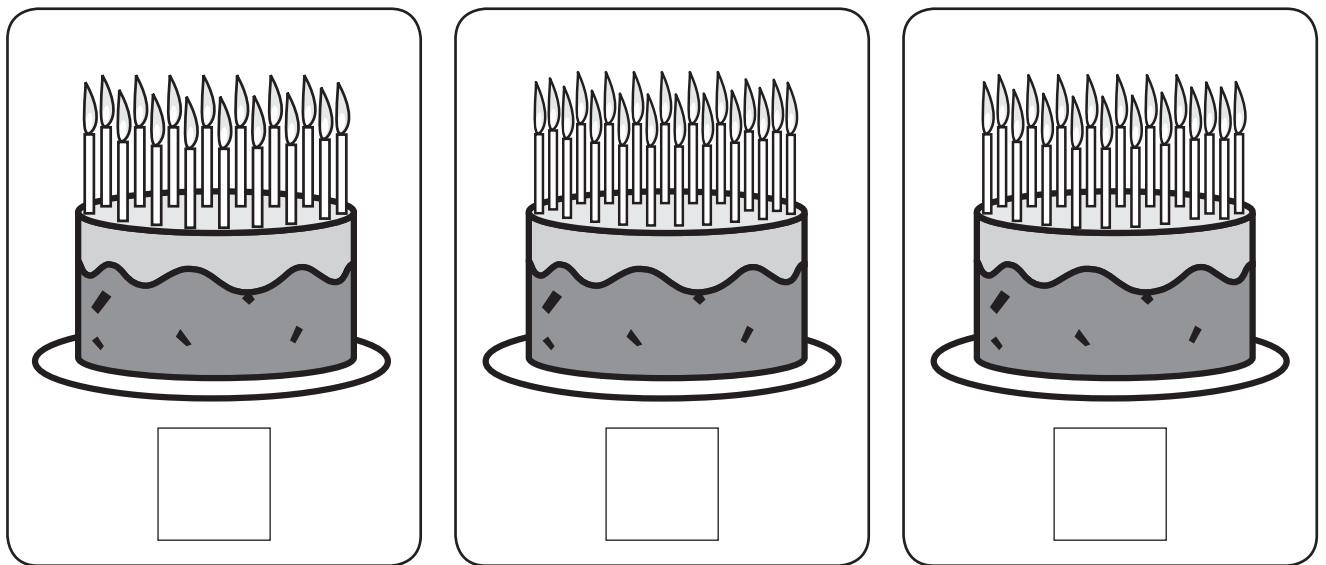
How many more than 10 do you think 17 is?



# Numbers to 20 – 16 to 19

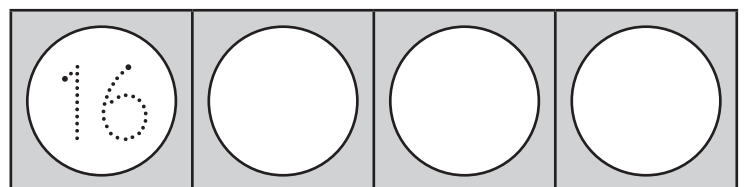
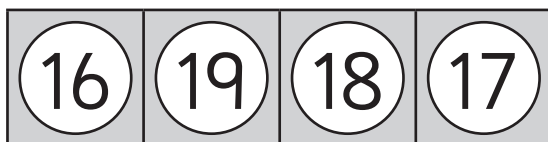
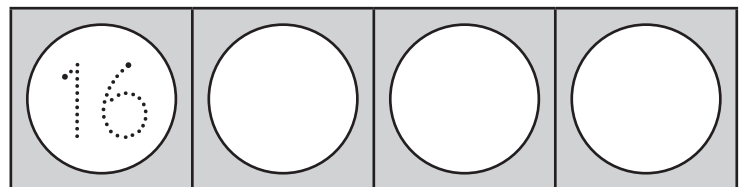
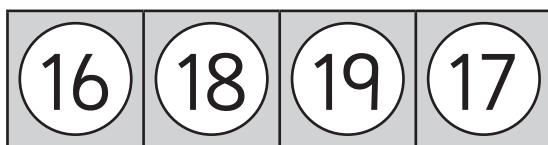
1   Say and trace.



2  How many candles on each cake? Colour each candle as you count.

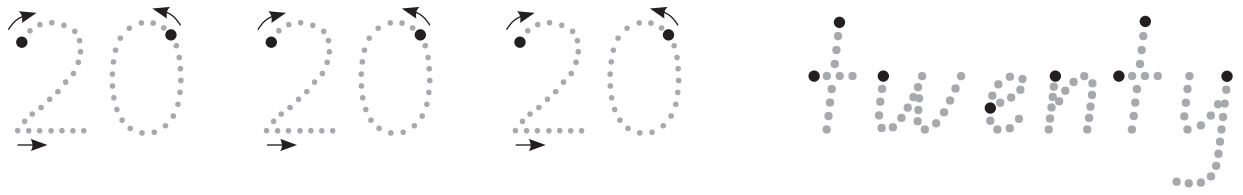



3   Say these numbers out loud. Are they in the right counting order? Put them in the right order. Say them again.  
Do they sound right now?



# Numbers to 20 – 20 (twenty)

1   We write **20** as **2** and then **0**. Say and trace.



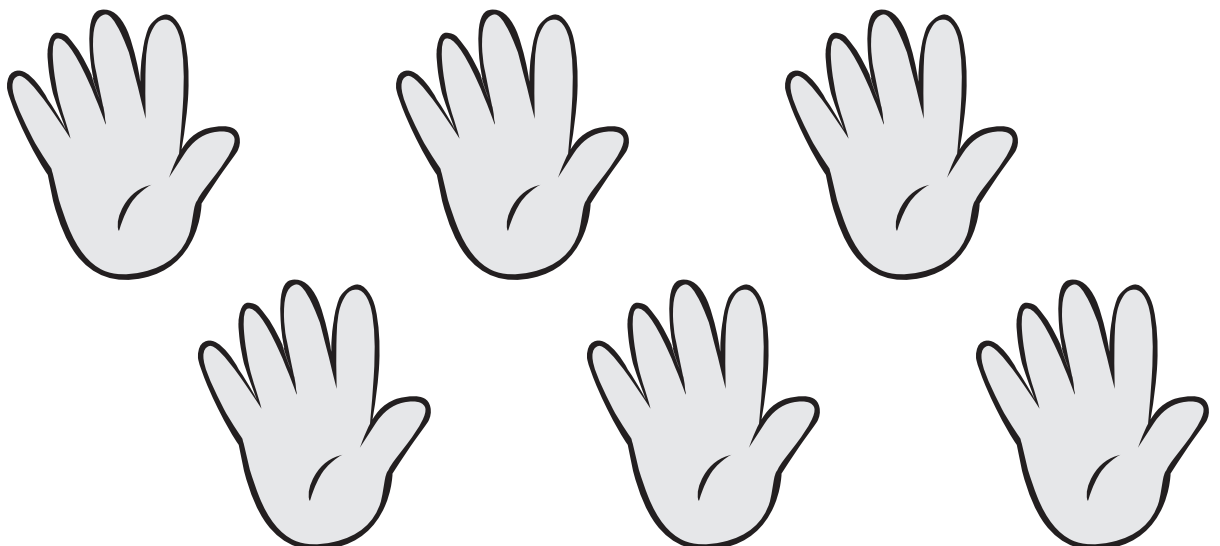
2  Are there 20? Colour yes or no.

yes no

yes no

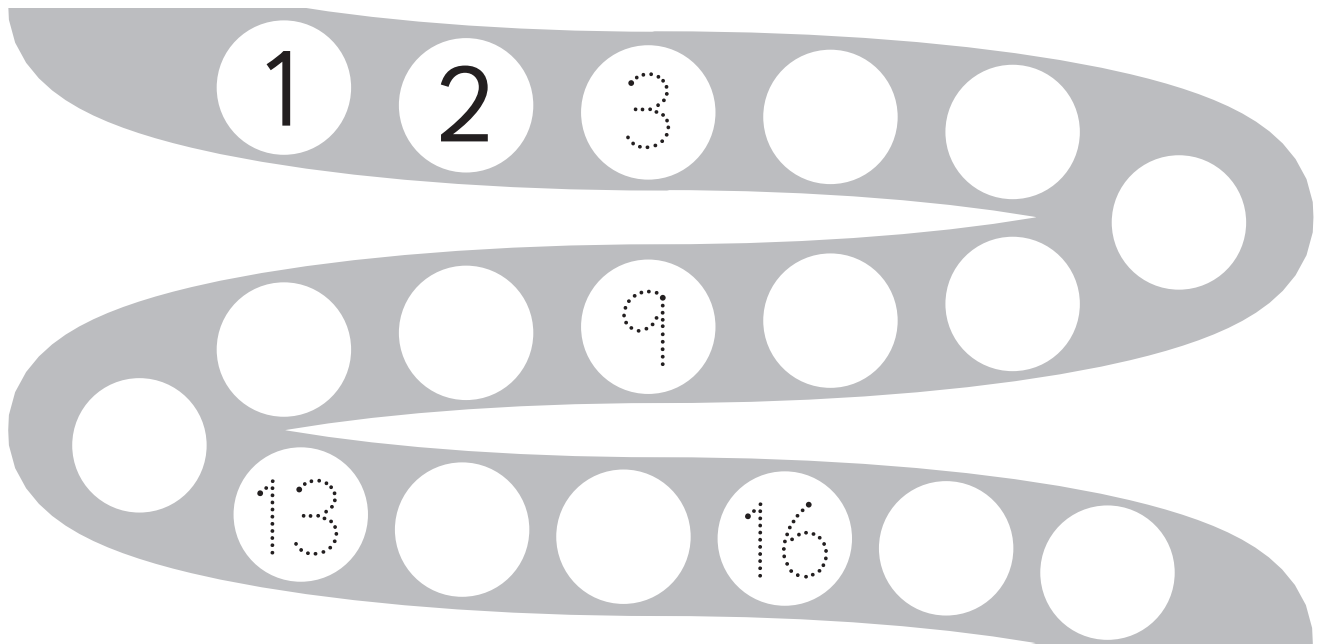
yes no

3  Loop the right number of hands to show 20 fingers and thumbs.



# Numbers to 20 – 1 to 20

- 1  Fill in the missing numbers.



- 2  Write the numbers that come **before** and **after**.

before                      after

<input type="text"/>	17	<input type="text"/>
----------------------	----	----------------------

before                      after


<input type="text"/>	14	<input type="text"/>
----------------------	----	----------------------

before                      after

<input type="text"/>	15	<input type="text"/>
----------------------	----	----------------------

before                      after

<input type="text"/>	12	<input type="text"/>
----------------------	----	----------------------

- 3  Write a number that is **more than** 11.

Write a number that is **less than** 15.

# Numbers to 20 – count on and back

1  Count on.

a

10	11				15
----	----	--	--	--	----

b

13	14				
----	----	--	--	--	--




2  Count back.


a

20	19			16	15
----	----	--	--	----	----

b

16		14	13		
----	--	----	----	--	--

3   Find a partner. Take turns counting from 1 to 20 or from 20 to 1. Stop around half way and see if your partner can pick up where you left off. Give yourselves a big tick each time you finish it correctly. 

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

# Numbers to 20 – count on and back

**You will need:**  some partners and a helper  counters

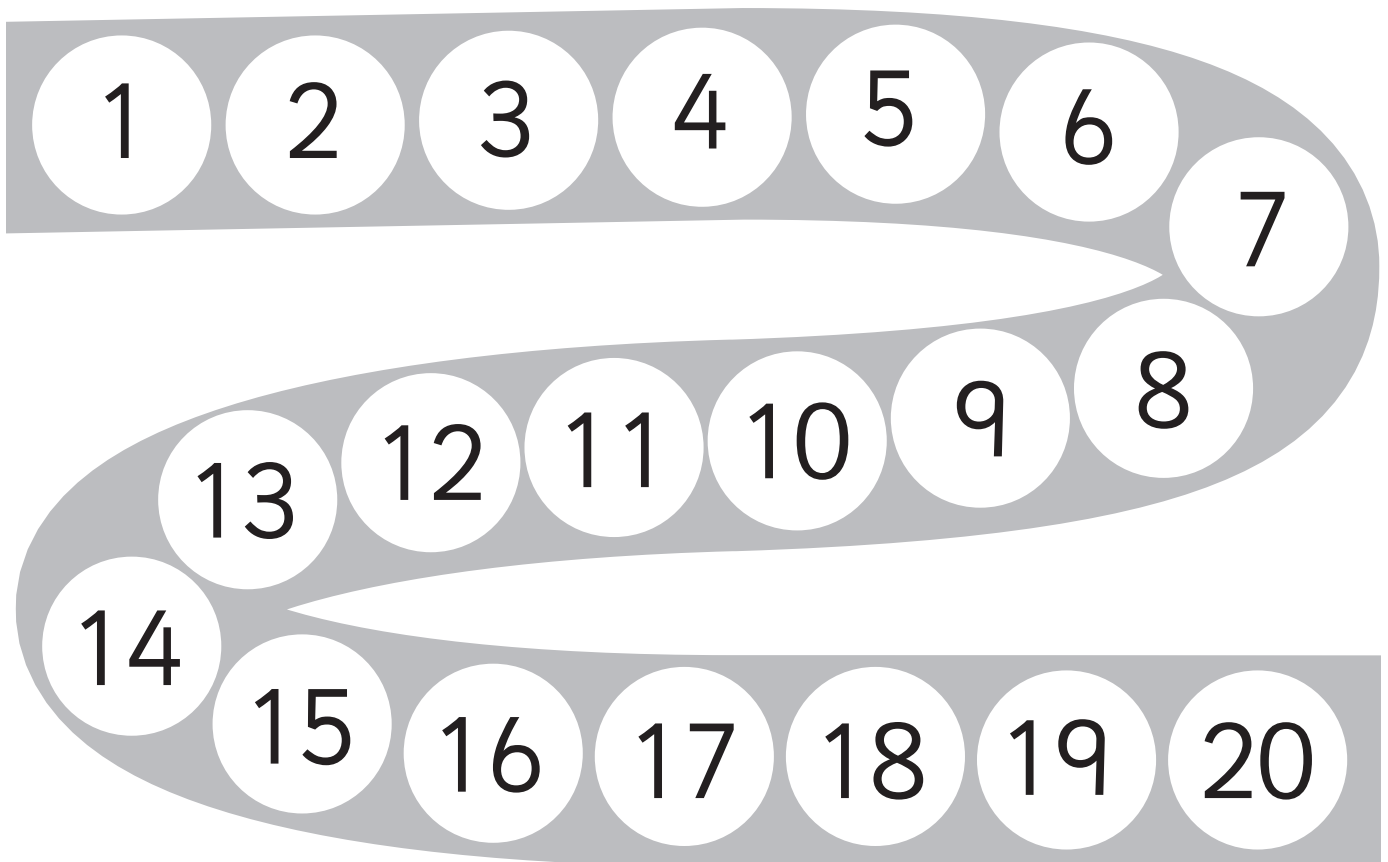
## What to do:

Ask your helper to turn away. Each player, put a different coloured counter onto the track below.

When you are ready, tell your helper and they will call out a number between 1 and 20.


If your counter is on that number, you score 3 points. If your counter is closest to the number you score 2 points. If more than one of you are on the number or close to it, you score 1 point. Your helper will assist you with this.

Play until one lucky player scores 10 points.





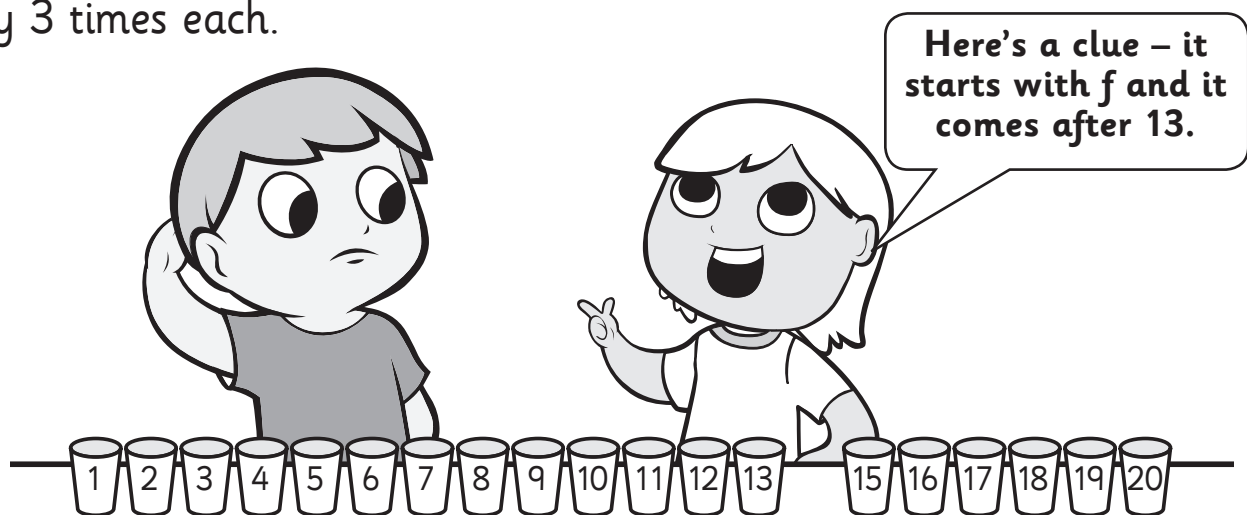
# Numbers to 20 – ordering numbers

**You will need:**  a partner  20 plastic cups  
 a permanent marker  20 counters or cubes

## What to do:

Label the plastic cups 1 to 20. Mix them up and then put them in order from 1 to 20.

Take turns removing a cup without letting your partner see. Can they guess which one has gone? They must be able to say the number! Play 3 times each.



## What to do next:

You will need the 20 cubes or counters and 1 cup. You will also need to play this game in a quiet space.

Player 1, close your eyes.

Player 2, slowly and clearly drop some of the cubes or counters into the cup, one by one.

Player 1 count the drops as you hear them. If you get confused, ask Player 1 to start again.

Say the final number to Player 1. Are you right?

Swap jobs.

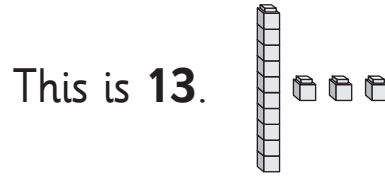
# Numbers to 20 – tens and ones introduction

We can make numbers using tens and ones blocks.




**1** tens block and **0** ones blocks

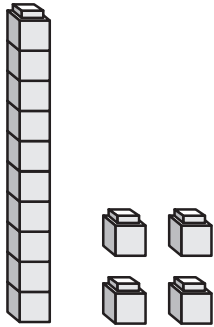
10



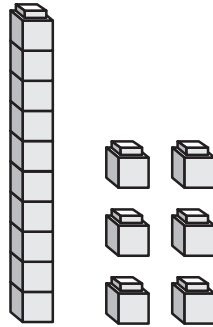
**1** tens block and **3** ones blocks.

13

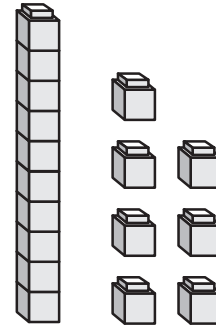
1  How many?



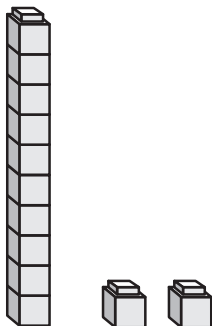
↑	4	14
tens	ones	number



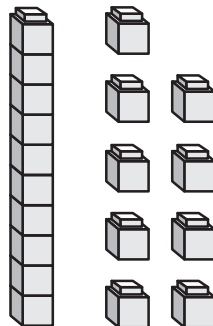
tens	ones	number



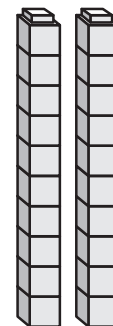
tens	ones	number



tens	ones	number




tens	ones	number

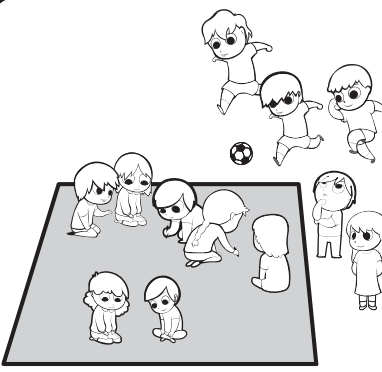


	0	
tens	ones	number

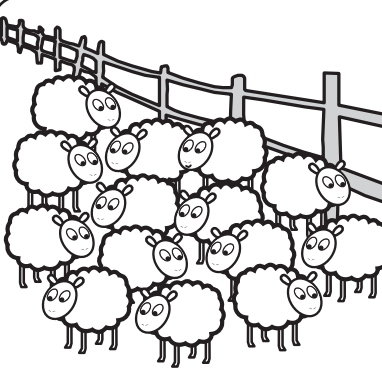
# Numbers to 20 – estimation

We estimate when we guess what a number may be instead of counting exactly. We estimate a lot in daily life.

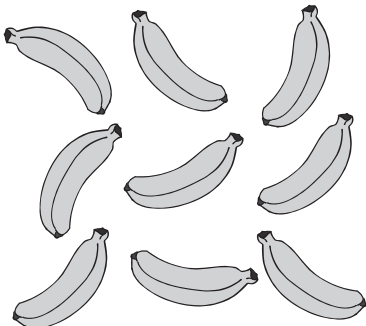
- 1  How many? Write your estimates (**e**), show a partner and then count (**c**).




e  c



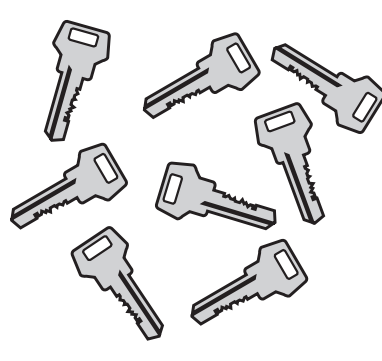
e  c



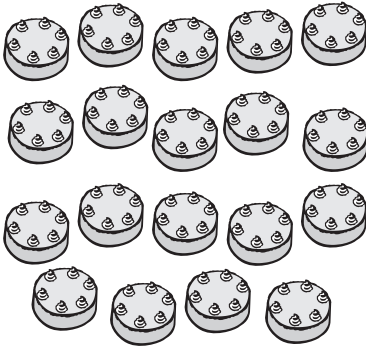
e  c




e  c




e  c



e  c



- 2  You will need a partner, 20 counters and a book to cover them. Take turns picking a handful of the counters **without counting**. Spread them out and both look at them for 5 seconds. Cover them with the book. Both say your estimates, and then check. Do you get better with practice?

# Numbers to 30 – counting


- 1  Draw a face for each child in your class and finish the statement.  
How will you know you have counted everyone and counted them only once?

There are  children in my class.

# Numbers to 30 – count and order

- 1   Say the numbers out loud and trace the dotted ones.

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

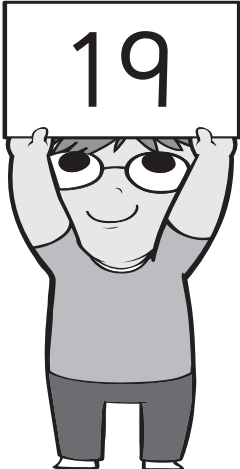
- 2  Write 3 numbers that are less than me. Write 3 numbers that are more than me.

less than

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_




more than

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

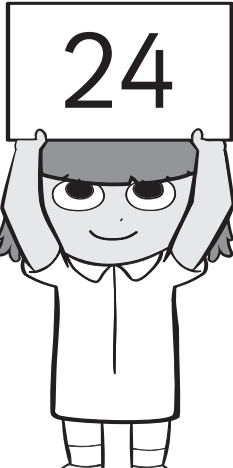
- 3  Write 3 numbers that are less than me. Write 3 numbers that are more than me.

less than

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



more than


\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Numbers to 30 – count and order

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

- 1  Use the grid to help you fill in the missing numbers on these puzzle pieces.

12	13	

7	8


23	24	25

16	17	

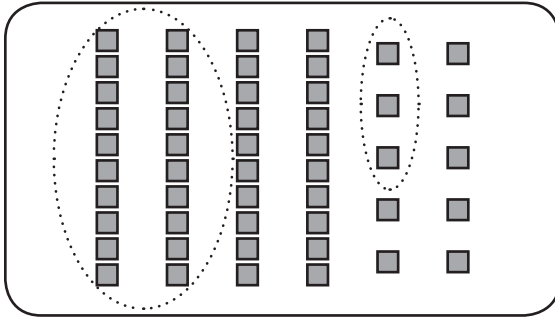

21			

- 2  What numbers could go on these puzzle pieces?

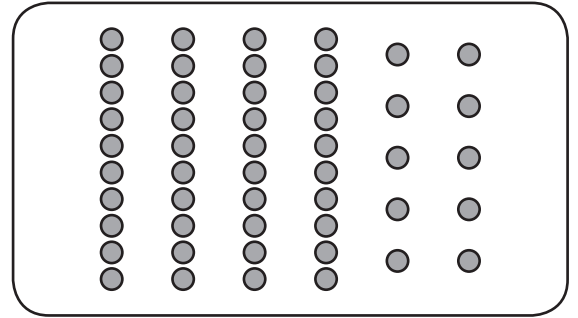


# Numbers to 30 – matching amounts

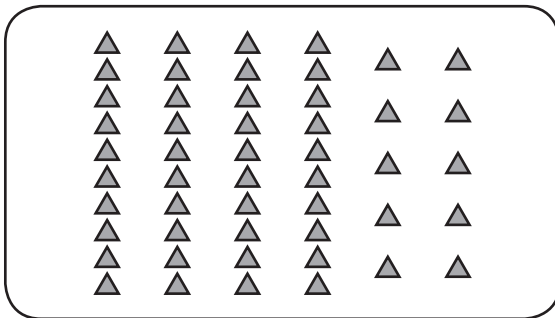
1  Loop the shapes to match each number.



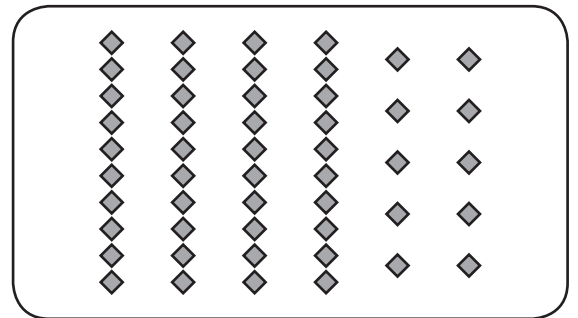
23




22



28



19

2  You will need 30 counters. Work in your own book. Player 1, close your eyes and take some of the counters. Both players look at the counters for 5 seconds and estimate how many. Write your estimate in an **e** box below. Now count and write the number in a **c** box. Player 2, do the same. Play 4 times.


**e**  **c**

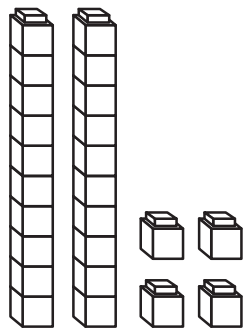
**e**  **c**

**e**  **c**

**e**  **c**

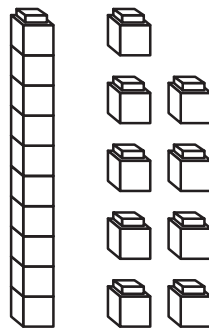
# Numbers to 30 – tens and ones

1  How many?



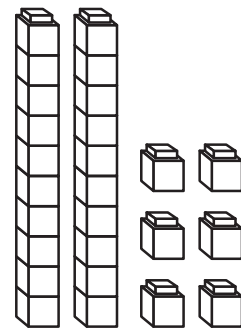
2	4	24
---	---	----

tens	ones	number
------	------	--------



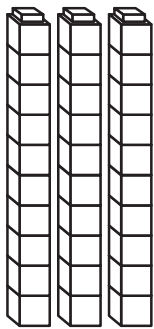
1		
---	--	--

tens	ones	number
------	------	--------



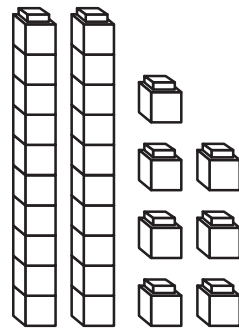
--	--	--

tens	ones	number
------	------	--------



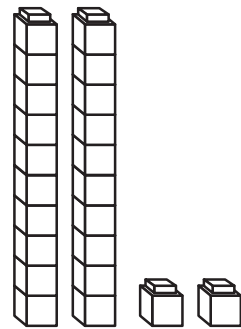
	0	
--	---	--

tens	ones	number
------	------	--------





--	--	--

tens	ones	number
------	------	--------



--	--	--

tens	ones	number
------	------	--------

2   Use tens and ones blocks to make these amounts. Tick the numbers when you have made them and show your teacher how you did it.

23
----

17
----

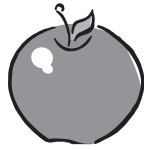
26
----

30
----



# Fractions – parts and wholes

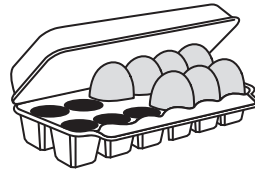
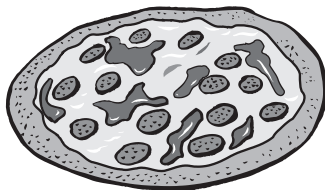
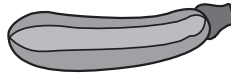
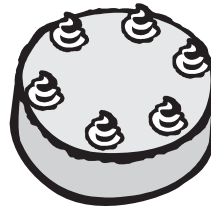
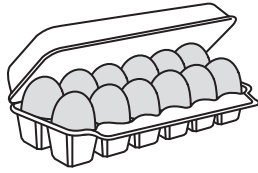
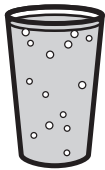
This is a **whole** apple.



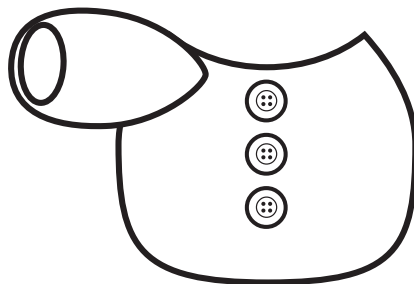
This is **part** of a whole apple.



1   Tick the wholes. Loop the parts.

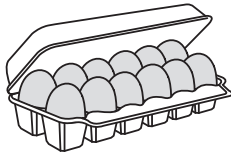


2  This is part of a teddy. Draw the other parts to make a whole teddy.

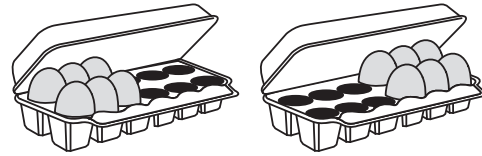


# Fractions – parts and wholes


This a whole carton of eggs.

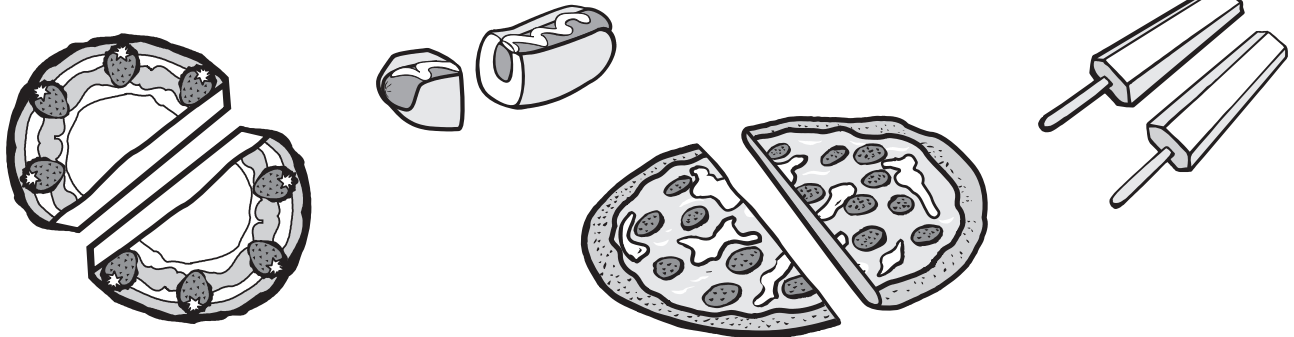




It is now broken into parts.

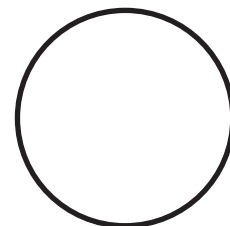
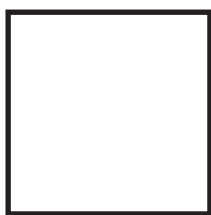


Are the parts **equal** or **the same**? Yes, they are the same.

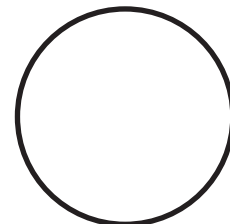
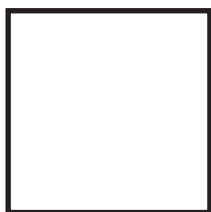
- 1  Colour the wholes that have been broken into equal parts.  
This means the parts are the same.



- 2   Draw lines to split these shapes into 2 equal parts.  
This means the parts are the same.



Now draw lines to split the shapes so the 2 parts are **not** the same.



Compare your splits with a partners'. Are they the same? If not, can you both be right?

# Fractions – halves

When we divide a whole into 2 equal parts, we call each part a **half**.

This is one whole apple.



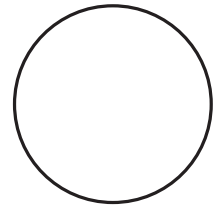
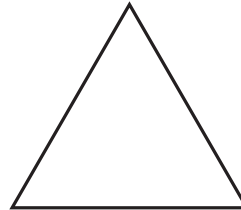
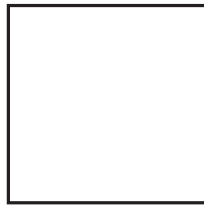
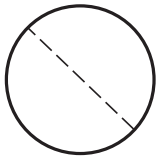
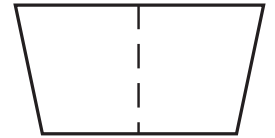
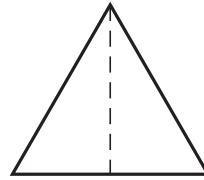
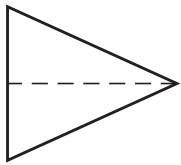
whole


The apple is now cut into halves.

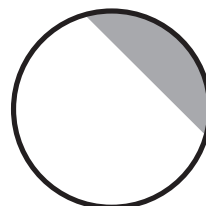
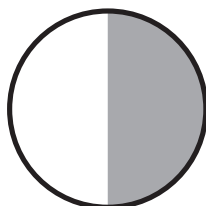
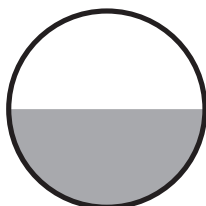
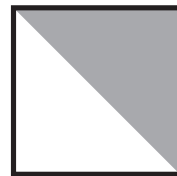
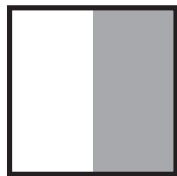
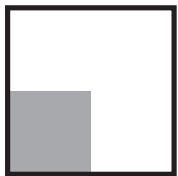


half half

1  Colour 1 half of each shape.



2  Tick the shapes that have 1 half shaded. Remember, halves must be **equal** or the **same**.



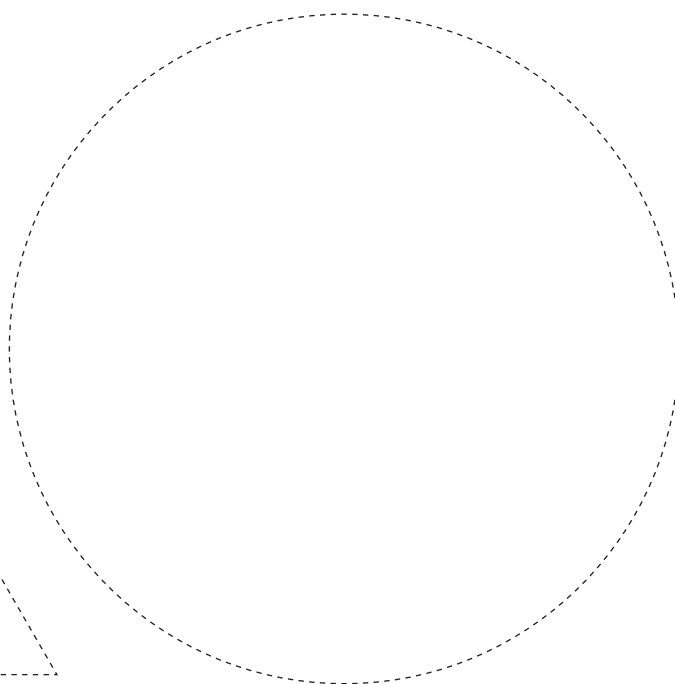
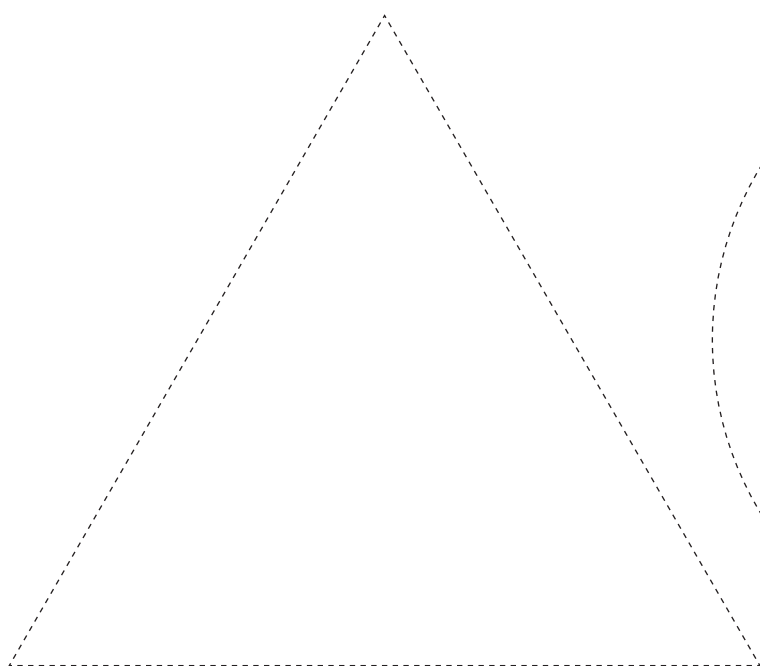
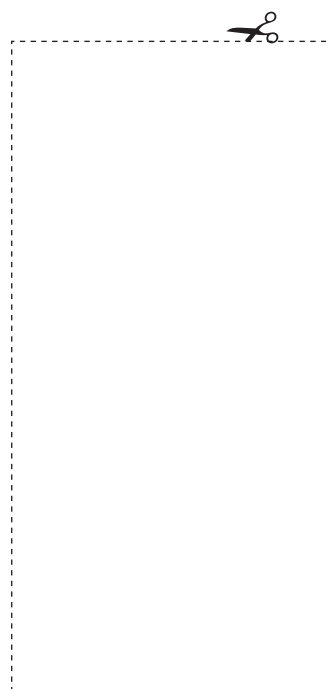
# Fractions – halves

You will need:  scissors



## What to do:

Cut out the shapes below. Find some different ways to fold them in halves. Show someone your ways.



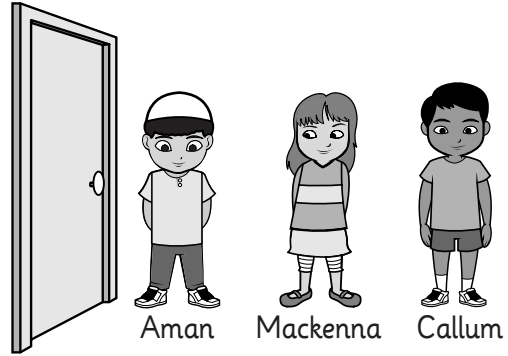
# Ordinal numbers – 1st to 3rd


We use ordinal numbers to talk about **order**. Look at this line.


Who is **1st**? Aman is 1st.

Who is **2nd**? Mackenna is 2nd.

Who is **3rd**? Callum is 3rd.



- 1  What are some times we say or use the words 1st, 2nd or 3rd? Draw or write them.

- 2  Look at this race. Write the ordinal numbers to show the order.



1st

2nd

3rd

# Ordinal numbers – 1st to 3rd

You will need:



scissors



pencils or markers



## What to do:

Close your eyes and listen to your teacher read the rhyme. Imagine what the people might look like. Now draw each person in their box.

Cut out the boxes and staple them in order to make a book.

Read your book to someone.

In order,  
please!


by \_\_\_\_\_

1<sup>st</sup> is the worst.

2<sup>nd</sup> is the best.

3<sup>rd</sup> is the  
person with the  
treasure chest!

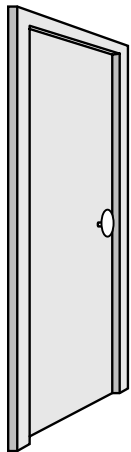
# Ordinal numbers – 1st to 10th

1   Say and trace the ordinal numbers.

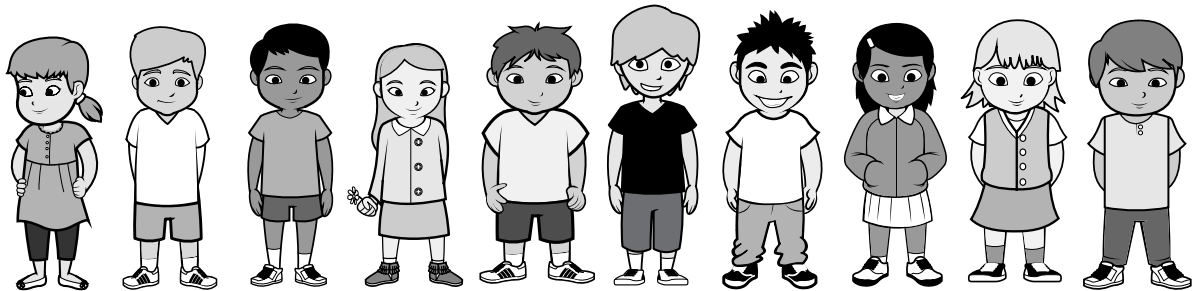
start

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

finish



These children are lining up outside their classroom.



Milly

Karl

Danny

Zara

Luke

Tran

Lachie

Sam

Pat

Jon

2  Who is:

1st? \_\_\_\_\_

4th? \_\_\_\_\_

8th? \_\_\_\_\_

10th? \_\_\_\_\_

# Ordinal numbers – 1st to 10th

**You will need:**  a partner  a counter  10 plastic cups  
 a permanent marker

## What to do:

Put the 10 cups in a line upside down. Decide which end is the start of your line and put a dot on the 1st cup.

Player 1, cover your eyes. Player 2, hide the counter under one of the cups.

Player 1, you have to guess which cup the counter is under by asking a question like, 'Is it under the 3rd cup?' Player 2, you lift up that cup to show. You can also give clues such as, 'It is near the middle of the line'.

When the counter is found, swap jobs. Play 3 times each.



## What to do next:

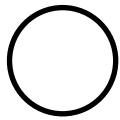
Label the cups 1st to 10th. Mix them up. Race against another pair to put them back into the right order. The first correct team sitting down with their hands on their heads is the winner!

Now, secretly take out a cup from the line. Let your partners guess which cup is missing.



# Patterns – continuing repeating patterns

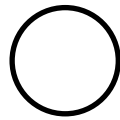
Patterns can repeat. This means they do the same thing over and over again.



circle



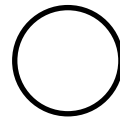
triangle



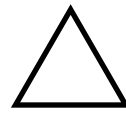
circle





triangle

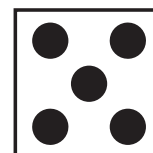
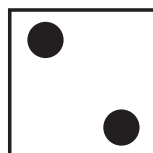
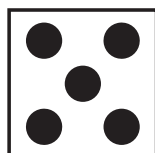
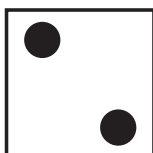
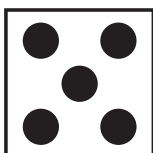
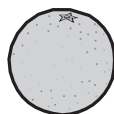
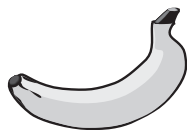
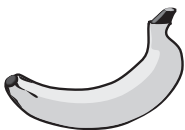
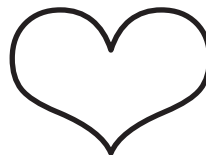
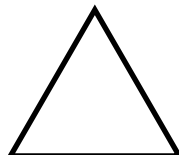
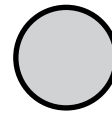
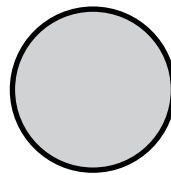
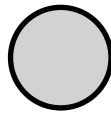
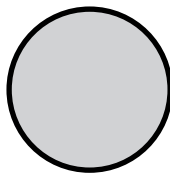
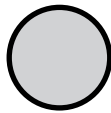
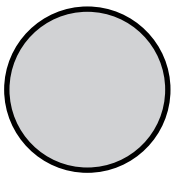
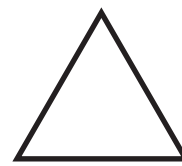
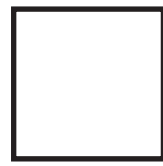
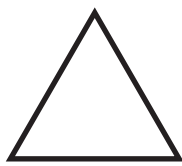
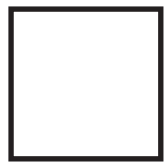
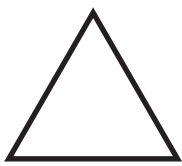


circle



triangle

1   Say each pattern out loud. What comes next? Draw it.



A

B

A

B


A

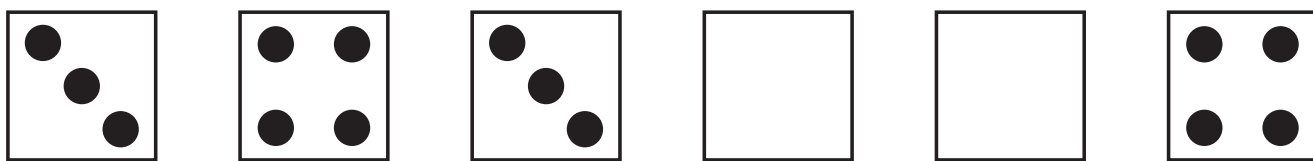
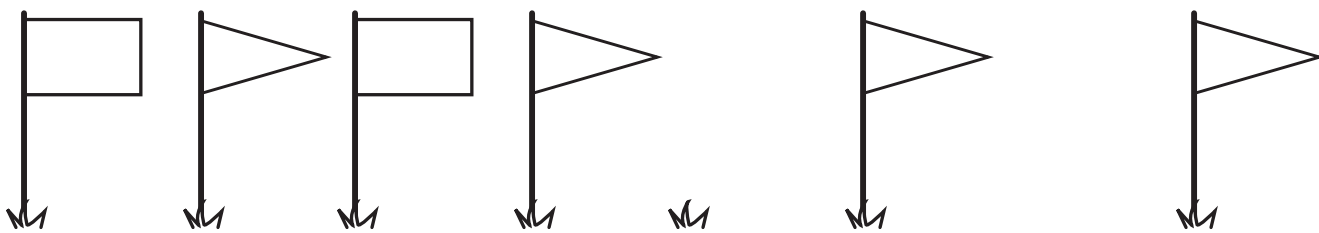
B


A



# Patterns – identifying missing elements

1  Draw the missing parts.



2  Find a partner. Together make a pattern using ○△□. Ask your partner to hide their eyes while you take 1 block out. Can they tell you which one is missing? Swap jobs.

# Patterns – creating repeating patterns

**You will need:**  a partner  shape blocks



## What to do:

Make a pattern using shape blocks.



Which shapes did you use? Record them here.

---

## What to do next:

This time make a pattern using these blocks  .

Draw some of it here.

Now make a different pattern using   blocks. How can you make it different if the blocks are the same?

Draw some of your new pattern here.

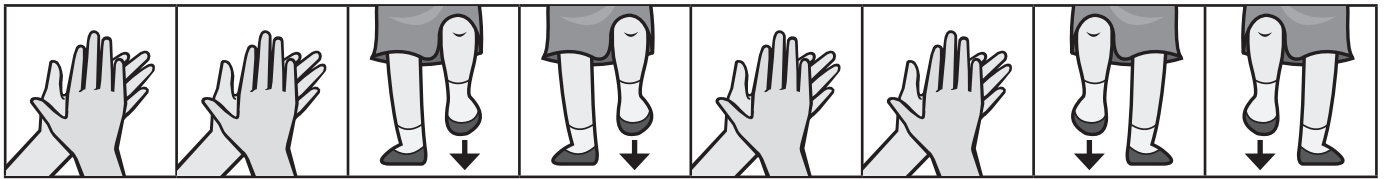
# Patterns – creating repeating patterns

We can make patterns using our bodies and our voices.

**You will need:**  a partner

## What to do:

Make this pattern with your body. Continue it.

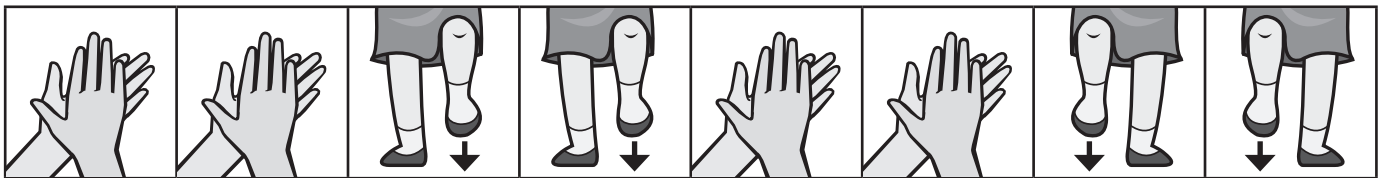


Make up a different body pattern. Can your partner continue it?

Swap roles.

## What to do now:

We could record this pattern using shapes.



Record this pattern below.



## What to do next:

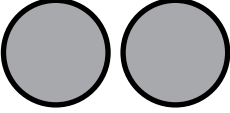

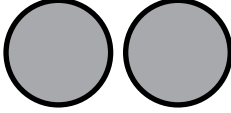

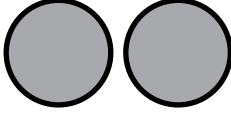


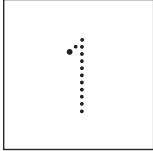

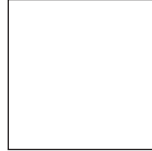
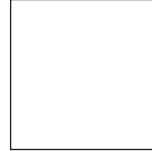
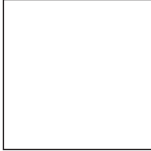
Say this pattern out loud. Continue it.


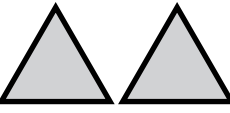

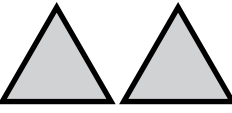



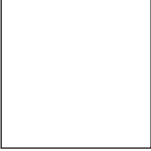
**Whoop, whoop ... dingle dingle ... whoop, whoop, dingle dingle ...**

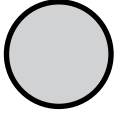
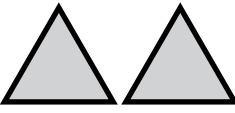
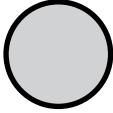
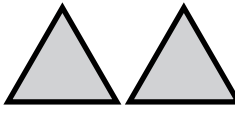
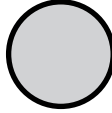
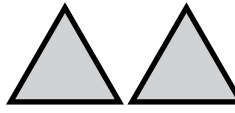
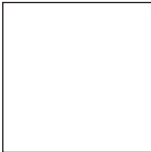


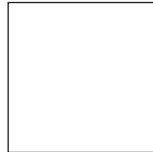

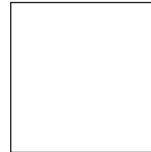
Invent your own voice pattern. Share it with the class.

# Patterns – introducing number patterns

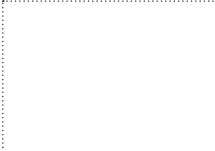
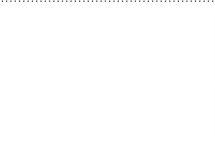
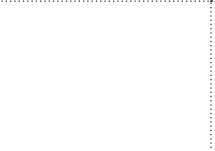
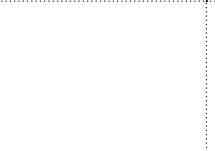
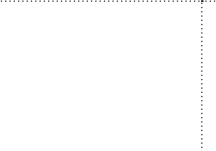
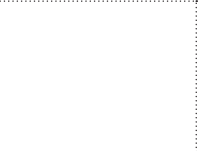






1   Say each pattern out loud. Write numbers to match.

					
					
circles	triangle	circles	triangle	circles	triangle

			
			
squares	triangles	squares	triangles

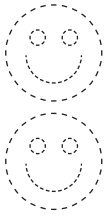
					
					
circle	triangles	circle	triangles	circle	triangles

2   Make this pattern with blocks. Draw it.

					
					
circles	square	circles	square	circles	square

# Patterns – introducing number patterns

1  Draw faces to match.



happy



sad



happy




sad

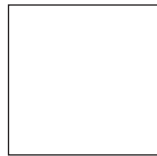
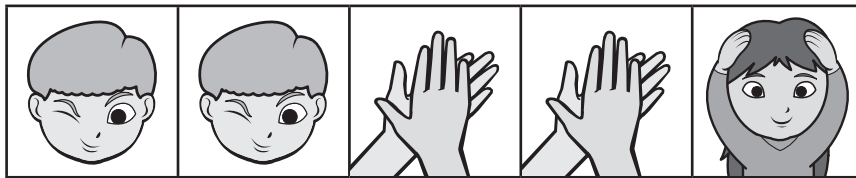


happy

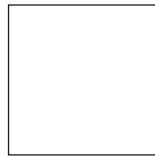


sad

2  Write the numbers to match this body pattern.



winks





claps








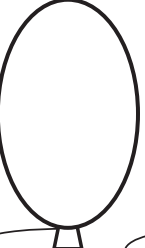
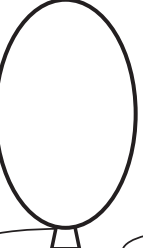






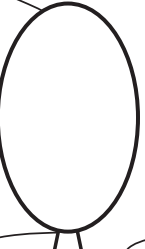
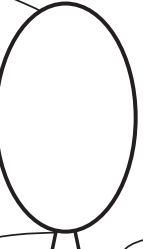
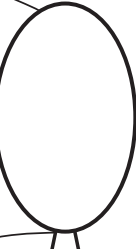
hands  
on head

Make this pattern with your body. Continue it.

3   Make up your own body pattern. Show a partner. Record it below using pictures and numbers.

# Patterns – number patterns

1  Look at each number pattern. Complete them.



							
							

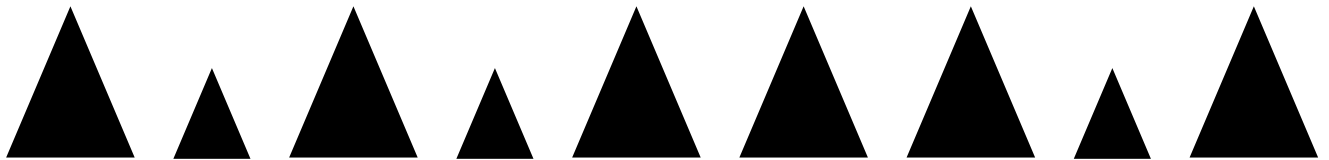
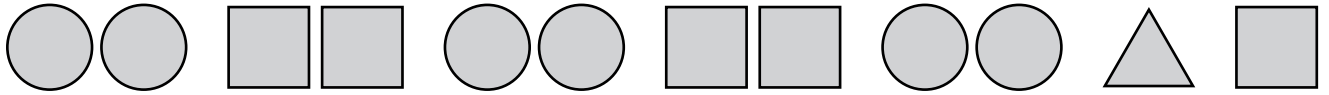
<table style="width: 100%; height: 100%;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">2</td></tr> <tr><td style="width: 50%;">1</td><td style="width: 50%;"></td></tr> </table>		2	1		<table style="width: 100%; height: 100%;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">2</td></tr> <tr><td style="width: 50%;">1</td><td style="width: 50%;"></td></tr> </table>		2	1		<table style="width: 100%; height: 100%;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;"><input style="width: 50px; height: 30px;" type="text"/></td></tr> <tr><td style="width: 50%;">1</td><td style="width: 50%;"></td></tr> </table>		<input style="width: 50px; height: 30px;" type="text"/>	1		<table style="width: 100%; height: 100%;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;"><input style="width: 50px; height: 30px;" type="text"/></td></tr> <tr><td style="width: 50%;">1</td><td style="width: 50%;"></td></tr> </table>		<input style="width: 50px; height: 30px;" type="text"/>	1	
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# Patterns – find the mistake

- 1   Say each pattern out loud. Can you spot the mistake?  
Loop the parts that are wrong.



- 2   Say each counting pattern out loud. Can you spot the mistake? Loop each mistake.



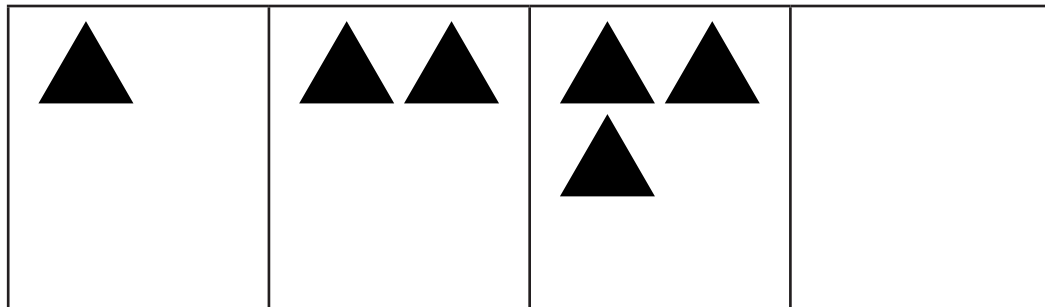
- 3   Use shape blocks to make a pattern. Make a mistake and see if your partner can spot it. Swap jobs.



# Patterns – growing patterns

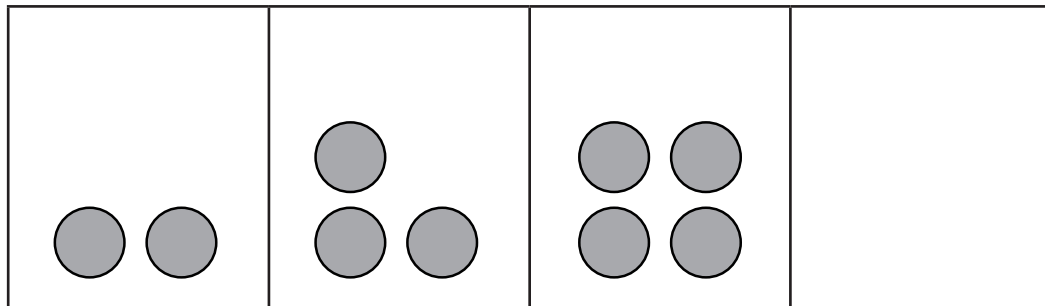
Some patterns grow. They get bigger by the same amount every time.

- 1  Draw shapes to complete these growing patterns.  
Name the rule.



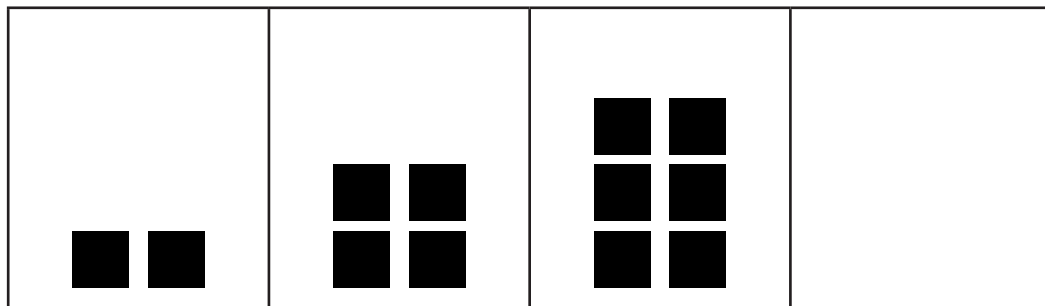
The rule is

add 1



The rule is

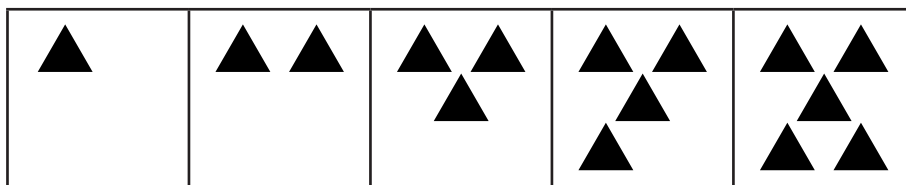
add     



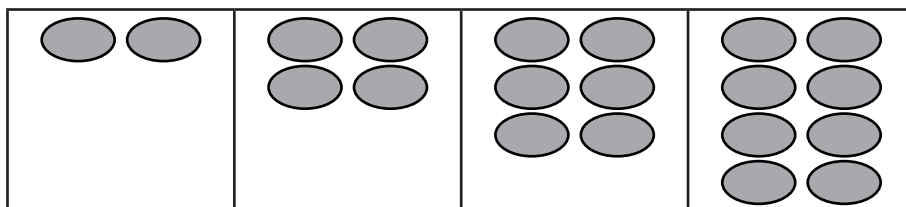
The rule is

add     

- 2  Draw lines to match the growing patterns with their rule.



add 2



add 1

# Patterns – growing patterns

**You will need:**  a partner  shape blocks

## What to do:

Choose a shape to build a growing pattern with. Ask your partner to guess the rule.

Draw part of your pattern and write its rule below.



Swap jobs.



## What to do next:

Tell your partner a rule and see if they can build the growing pattern to match.





# Number relationships – equality

- 1   Find someone who is the **same** height as you. Record your answer.
- 


- 2   Find someone who has the **same** number of brothers as you.
- 

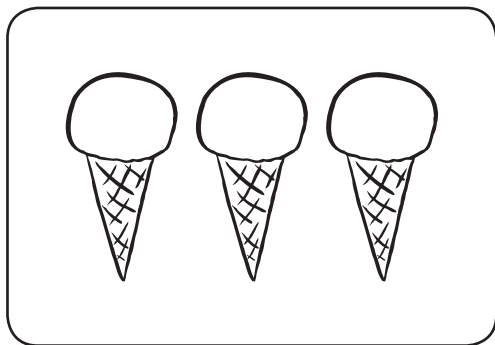
- 3   Find someone who has the **same** colour hair as you.
- 

- 4   Find someone who has the **same** ranking on Level 1 Live Mathletics as you.

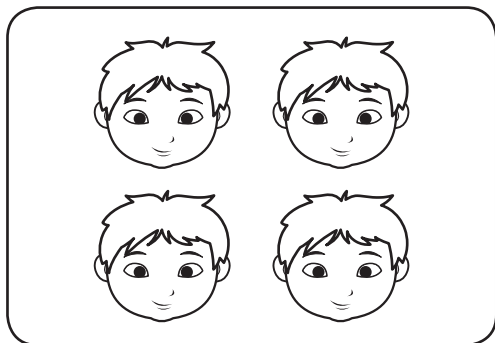
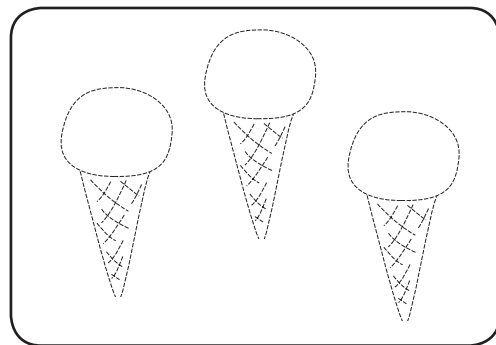
# Number relationships – equality

When groups have the same amount we say they are **the same** or **equal**.

- 1  Draw pictures to make the groups the same.



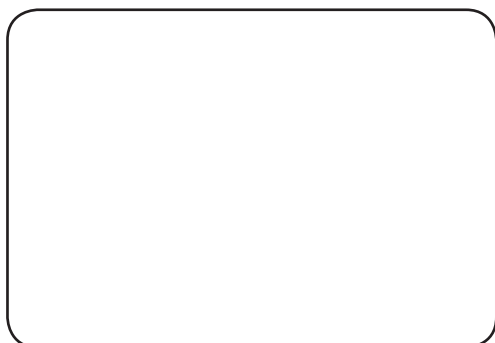
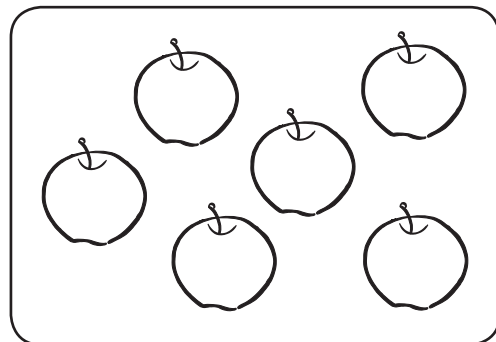
is the same as



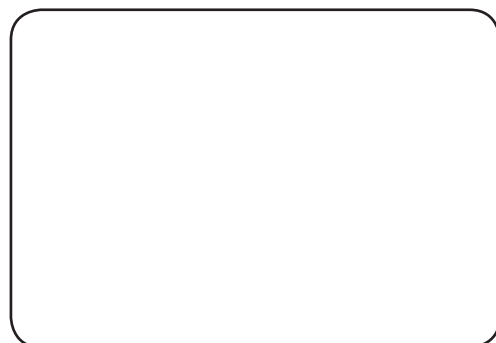
is the same as




is the same as

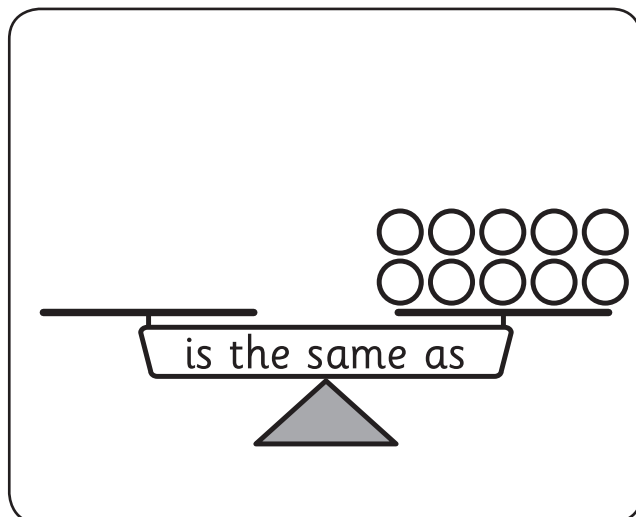
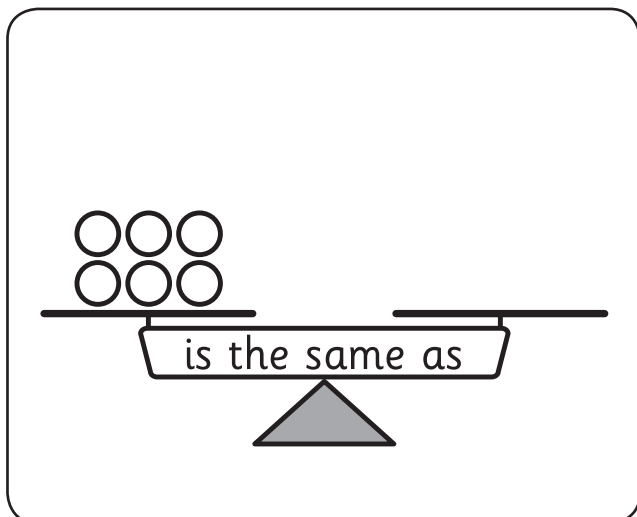
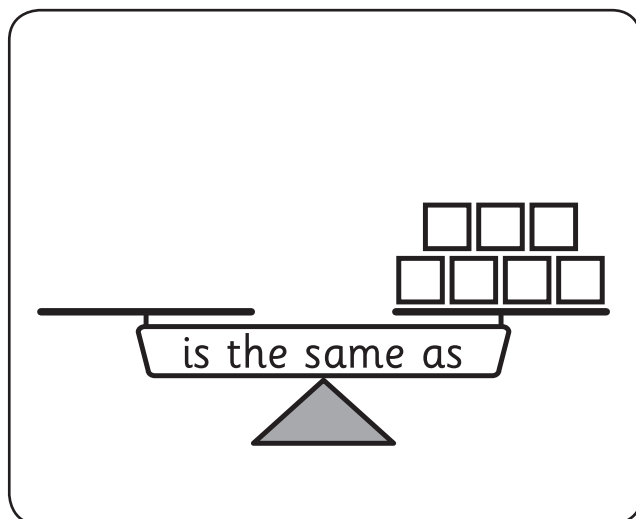
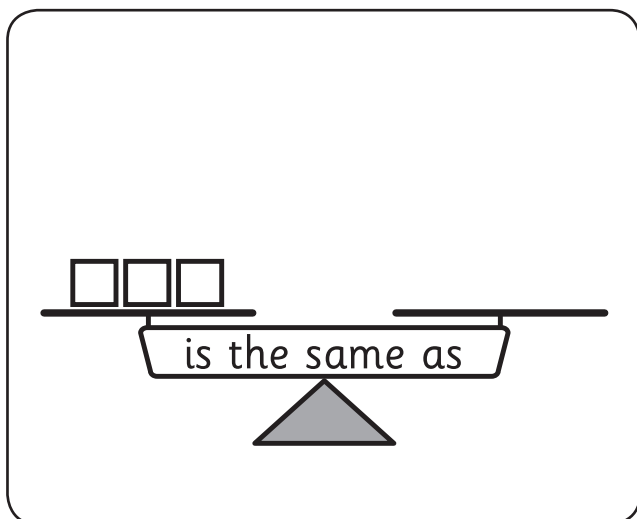
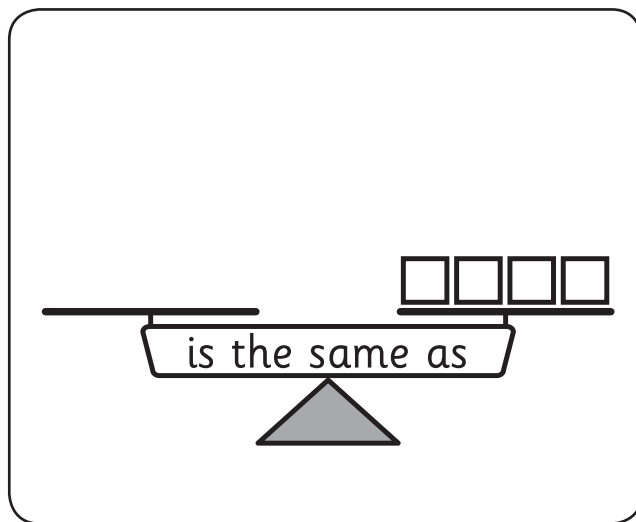
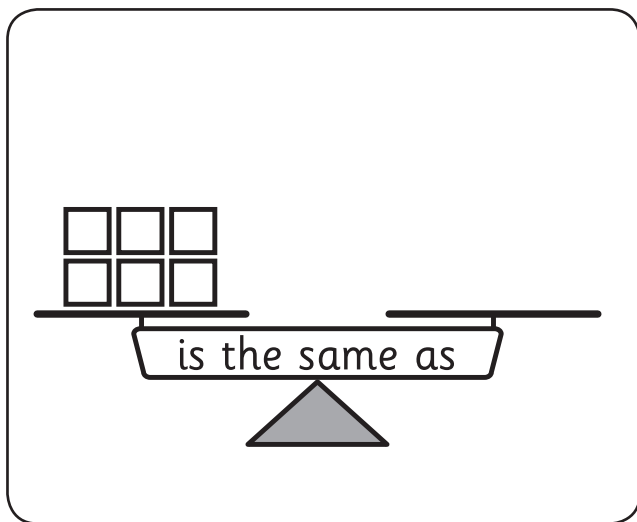


is the same as



# Number relationships – equality

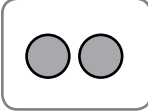
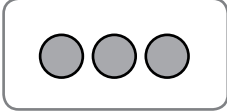
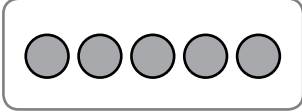



- 1  Draw blocks to make the scales balance. This means the sides have the **same** amounts of blocks. They are **equal**.



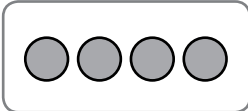
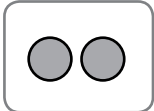
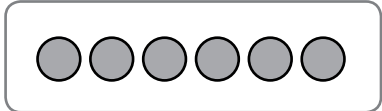

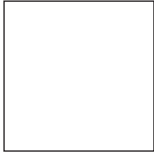
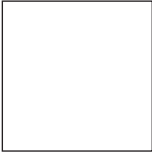
# Number relationships – equality

This is the equals sign = It means the **same as**.

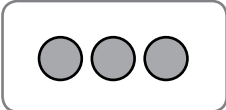
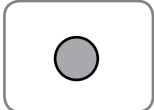
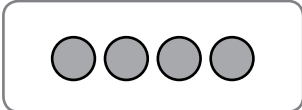


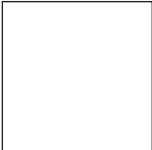
- 1  Count. Complete the statements and read them to a partner.

  is the same as   
 and  = 

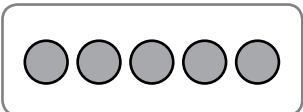
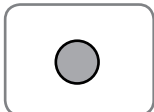
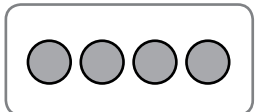



---

  is the same as   
 and  = 

---

  is the same as   
 and  = 

---

 is the same as    
 =  and 

# Number relationships – equality

**You will need:**  a partner  5 blue counters and 5 yellow counters

## What to do:

Here is 1 way you can equal 5.

$$\bullet \bullet \bullet \bullet \bullet = 5$$

Here is another way.

$$\bullet \bullet \bullet \bullet \circ = 5$$

Work with your partner to find 5 other ways you can equal 5. Record them below by colouring the circles.

$$\circ \circ \circ \circ \circ = 5$$

$$\circ \circ \circ \circ \circ = 5$$

$$\circ \circ \circ \circ \circ = 5$$

$$\circ \circ \circ \circ \circ = 5$$

$$\circ \circ \circ \circ \circ = 5$$

---

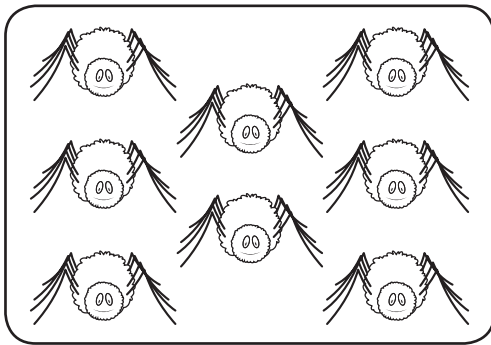
## What to do next:

Choose another number and find some ways to equal it.

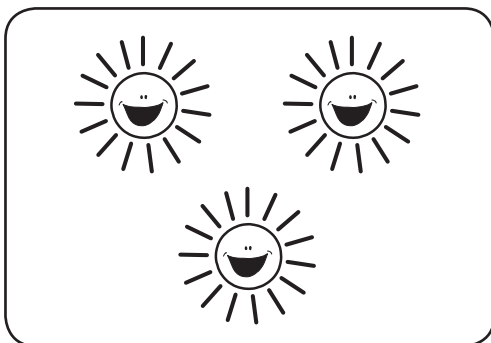
# Number relationships – inequality

If groups **do not** have the same amount we say they are not equal.  
This means one group has **more than** or **less than** the other.

1  Draw pictures so that:



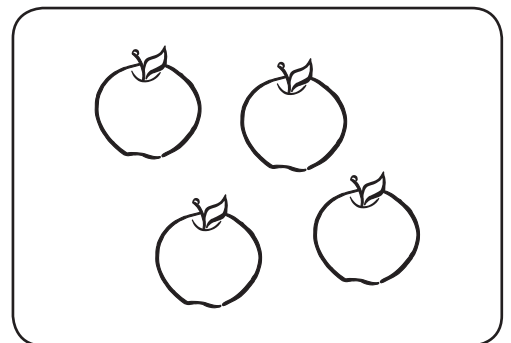
is **more** than



is **less** than



is **more** than



is **less** than

