Mathematics Enhancement Programme (MEP)

PROGRESS Booklet

Reception to Book1

Centre for Innovation in Mathematics Teaching
Plymouth University

Name .....

1

Count the shapes and write their number in the box.

a)  ☐

b)  ☐

c)  ☐

d)  ☐

2

Draw three orange circles here.

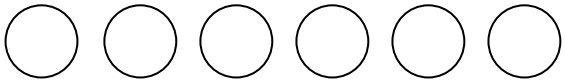
3

a) How many red circles are there? ☐

b) How many blue circles are there? ☐

c) How many circles are there altogether? ☐

4



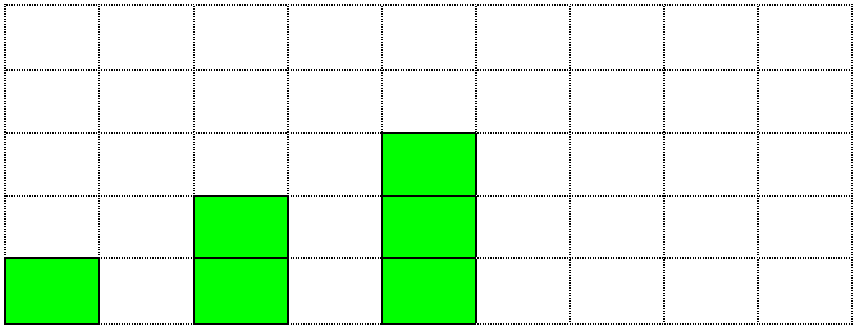
a) Colour two circles green and one circle yellow.

b) How many circles did you colour altogether? ☐

1

Continue the sequences.

a)

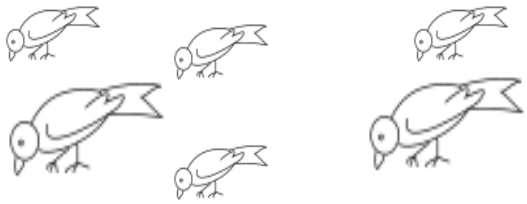


b) 1 2 3 ☐ ☐

c)  ☐ ☐

2

a) Draw a dot in a box for every bird.



b) Count the birds. How many birds are there? ☐

c) Colour the big birds black. How many are there? ☐

d) Colour the small birds yellow. How many are there? ☐

3

☐ ☐ ☐ ☐ ☐ ☐ ☐

a) Colour three squares red and two squares blue.

b) How many squares did you colour altogether? ☐

c) What is the answer?

3 + 2 = ☐ 2 + 3 = ☐

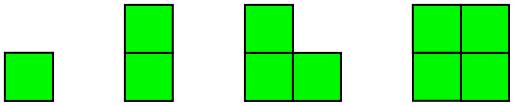
4

Colour the second triangle green. △ △ △ △ △

1

Continue the sequences.

a)



b) 1 2 3 4

c)

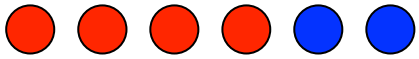
2

a) Draw a dot in a box for every snail.

b) Count the snails. How many snails are there?

c) How many snails are looking to the right?

3



a) Count the red coins and write their number here.

b) Count the blue coins and write their number here.

c) How many coins are there altogether?

What is the answer? 4 + 2 = 2 + 4 =

4

a) How many yellow triangles are there?

b) How many blue triangles are there?

c) Are there more yellow triangles or blue triangles?

Circle which colour. YELLOW BLUE

How many more?

1

a) Listen carefully. Circle as many walnuts as the number of claps I make. (2)

Write this number in the box. ☐

b) Listen carefully. Tick as many heads as the number of times I knock on the table. (3)

Write this number in the box. ☐

2

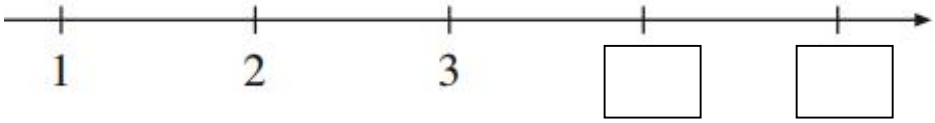
a) How many green shapes are there? ☐

b) How many red hearts are there? ☐

c) How many shapes are there altogether? ☐

3

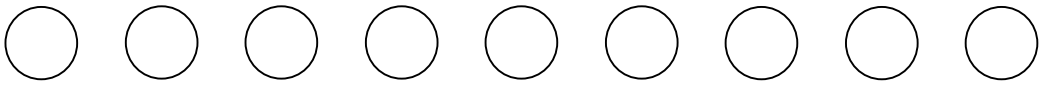
a) Write the next two numbers under the number line.



b) Which number is one more than 3? ☐

c) Which number is one less than 3? ☐

4



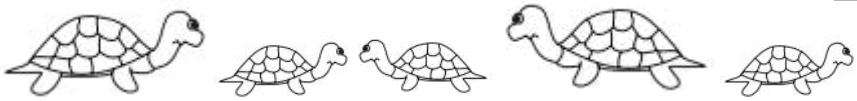
a) Colour three circles blue and four circles red.

b) How many circles did you colour altogether? ☐

What is the answer? 3 + 4 = ☐ 4 + 3 = ☐

1

a) How many turtles are there?



b) How many larger turtles are there?

c) The larger turtles go away. Cross them out.
How many turtles are left?

2

a) How many children are there in the first group?

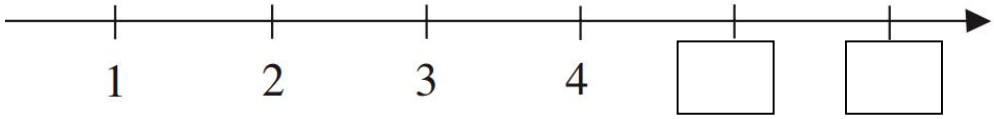
b) How many children are there in the second group?

c) How many children are there altogether?

What is the answer? 5 + 3 = 3 + 5 =

3

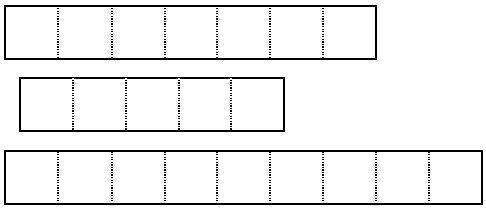
a) Write the next two numbers under the number line.



b) Which number is one more than 4?

c) Which number is one less than 4?

4



a) Colour the longest strip green.

b) Colour the shortest strip red.

1

a) How many lambs are there?

b) How many black headed lambs are there?

c) The black headed lambs go away. Cross them out.

How many lambs are left?

2

a) How many children are there in the first group?

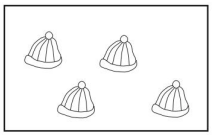
b) How many children are there in the second group?

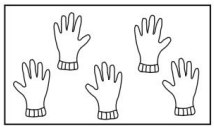
c) How many children are there altogether?

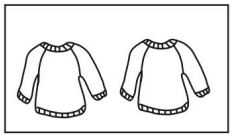
What is the answer? 5 + 4 = 4 + 5 =

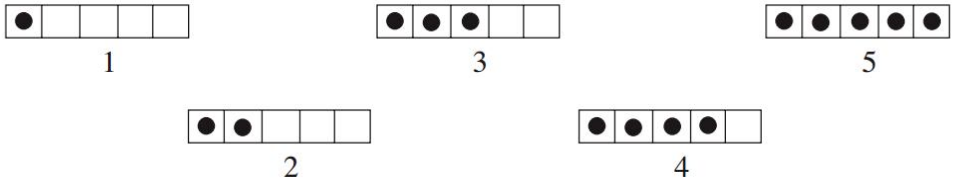
3

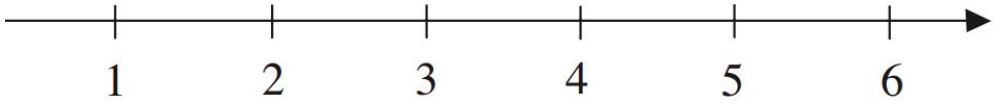
Join each picture to the correct dots. Join each set of dots to the correct place on the number line.

a) 

b) 

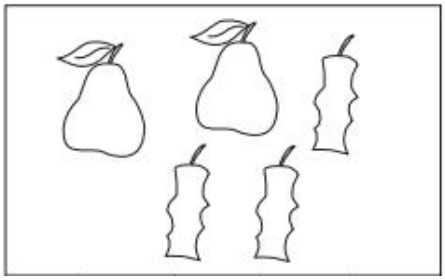
c) 





1

a) How many pears were there? ☐



b) How many pears were eaten? ☐

Cross out the pear-cores.

c) How many whole pears are in the picture? ☐

2

a) How many children are there in the first group? ☐

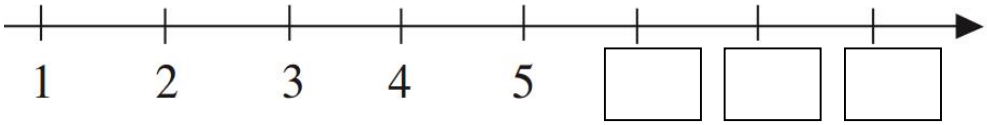
b) How many children are there in the second group? ☐

c) How many children are there altogether? ☐

What is the answer? 6 + 4 = ☐ 4 + 6 = ☐

3

a) Write the next three numbers under the number line.



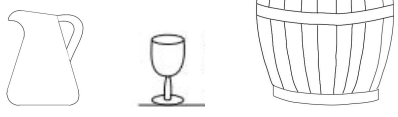
b) Which number is one more than 5? ☐

c) Which number is one less than 5? ☐

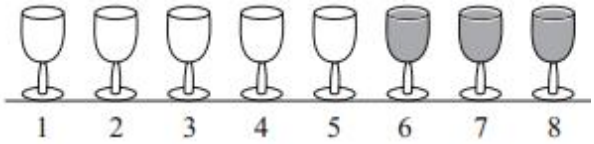
4

a) Which container can hold the most water?
Mark it with the digit 1.

b) Mark the smallest container with the digit 3.



1



a) How many glasses are there altogether? ☐

b) How many glasses are full of juice? ☐

c) How many glasses are empty yet? ☐

2

a) How many dogs are there? ☐

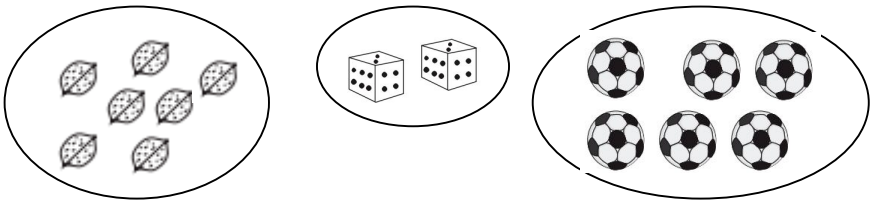
b) How many bees are there? ☐

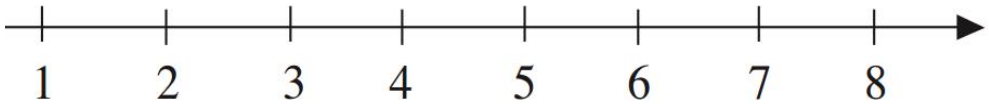
c) How many creatures are there altogether? ☐

What is the answer? 3 + 7 = ☐ 7 + 3 = ☐

3

Join the pictures to the number line.

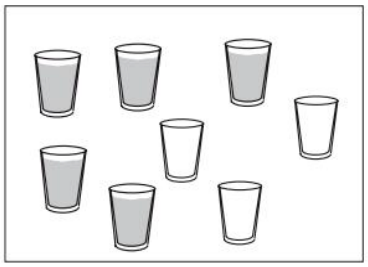




4

Two squirrels, Alvin and Betsy, want to share these acorns equally. Help them: circle the acorns for Alvin with blue and circle the acorns for Betsy with pink.

1



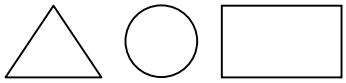
a) How many glasses are there altogether? ☐

b) How many glasses are filled with juice? ☐

c) How many glasses are empty now? ☐

2

Continue drawing the pattern twice.



3

a) Continue the number sequence.

1, 2, 3, 4, ☐ ☐ ☐ ☐ ☐ ☐

b) Write the numbers above the number line.

4

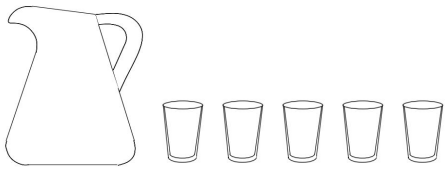
a) How many acorns did Sean Squirrel collect? ☐

b) Sue Squirrel collected twice as many acorns as Sean. Draw her collection.

c) How much is double 3? ☐

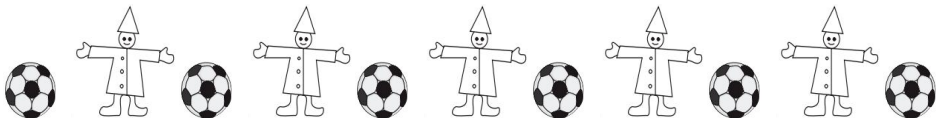
1

Mum prepared four litres of lemonade in a jug.
She poured one litre into the glasses for Sunday breakfast.



How much lemonade is left in the jug? ☐ litres

2



a) How many balls are there? ☐

b) How many puppets are there? ☐

c) How many toys are there altogether? ☐

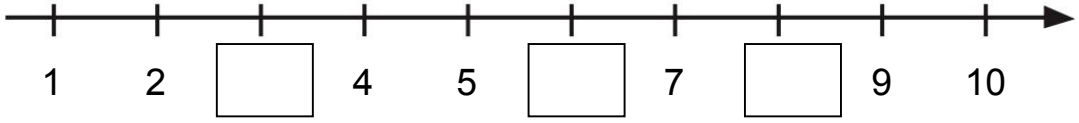
3

a) Draw these shapes in reverse order in the empty box.

b) Colour the triangles green, the circles red and the rectangles blue.

4

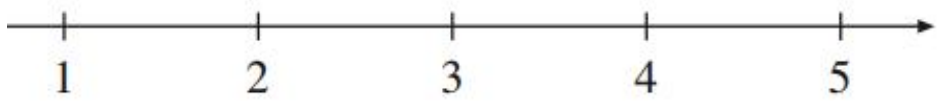
Write in the missing numbers under the number line.



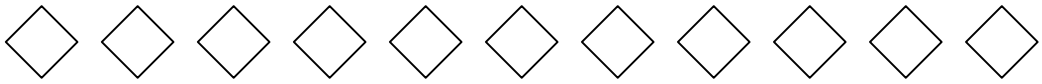
1

Martin tried to count down from five: 'Five, four, three, two, one'.

If you find he was right, draw a red dot into the box, and if you think he was not right, draw a black dot into the box.



2

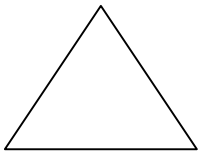


a) Colour seven squares green.

b) How many squares are left uncoloured?

c) How many squares are there altogether?

3



a) What is this shape called?

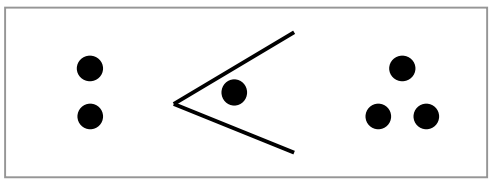
b) How many sides does it have?

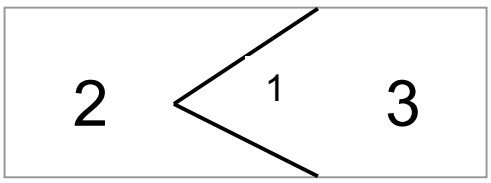
4

These two diagrams say the same. We can read it in two ways:

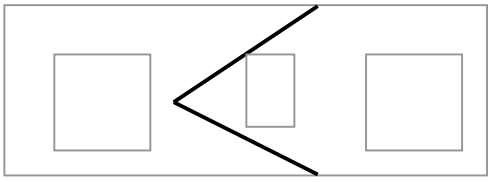
a) Two is one less than three.

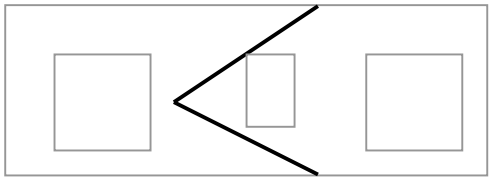
b) Three is one more than two.





c) Is 3 less than 4? Show this in two ways on the diagrams.

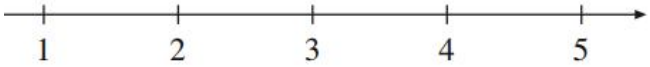




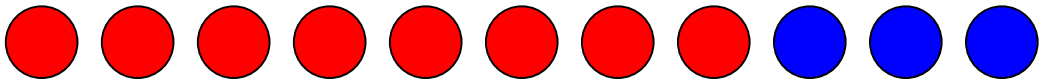
1

Finish counting down from 5 to 1. The number line can help you.

5 4 ☐ ☐ ☐



2

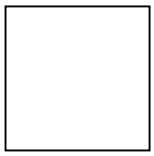


a) How many red coins are there? ☐

b) How many blue coins are there? ☐

c) How many coins are there altogether? ☐

3



a) What is this shape called? ☐

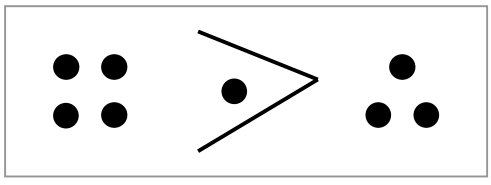
b) How many sides does it have? ☐

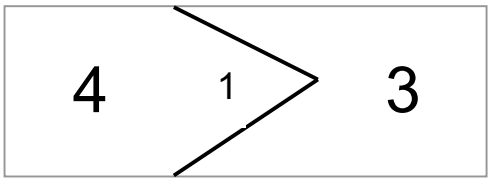
4

These two diagrams say the same. We can read it in two ways:

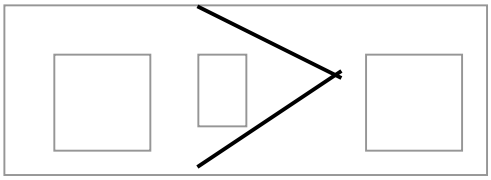
a) Four is one more than three.

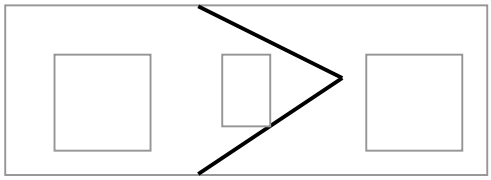
b) Three is one less than four.





c) Is 5 more than 4? Show this in two ways on the diagrams.

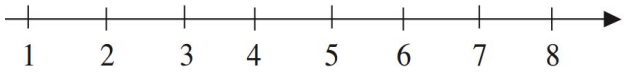




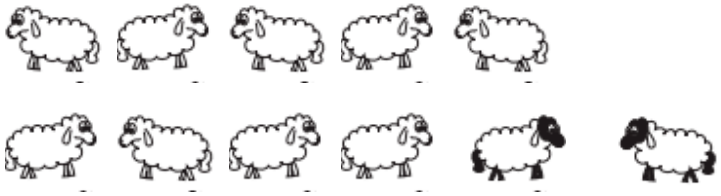
1

Finish counting down from 6 to 1. The number line can help you.

6 5 ☐ ☐ ☐ ☐



2

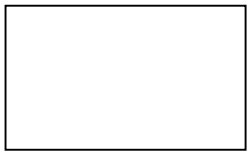


a) How many white headed sheep are there? ☐

b) How many black headed sheep are there? ☐

c) How many sheep are there altogether? ☐

3

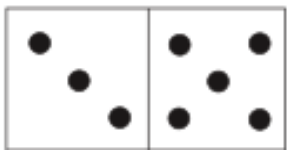


a) What is this shape called? ☐

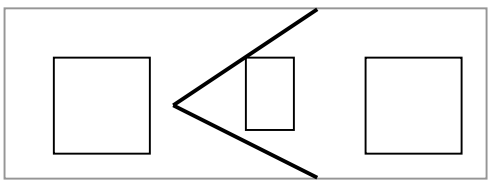
b) How many sides does it have? ☐

4

a) Count the dots on both sides of the domino.



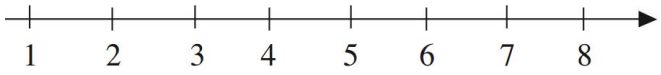
b) Which side has more dots? How many more? Write numbers about this domino in the diagram below.



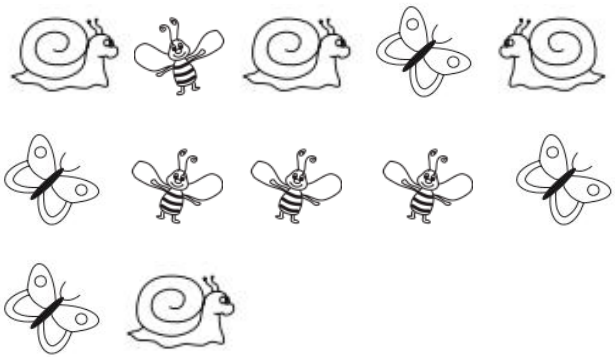
1

Finish counting down from 7 to 1. The number line can help you.

7 6 ☐ ☐ ☐ ☐ ☐

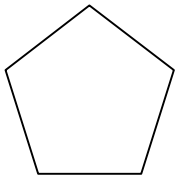


2



How many creatures are there? ☐

3

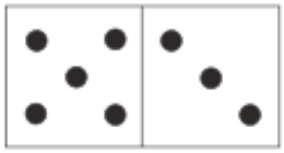


a) What is this shape called? ☐

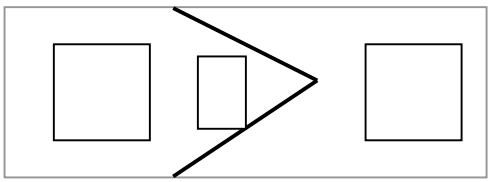
b) How many sides does it have? ☐

4

a) Count the dots on both sides of the domino.



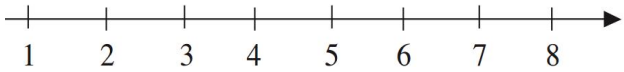
b) Which side has less dots? How many less? Write numbers about this domino in the diagram below.



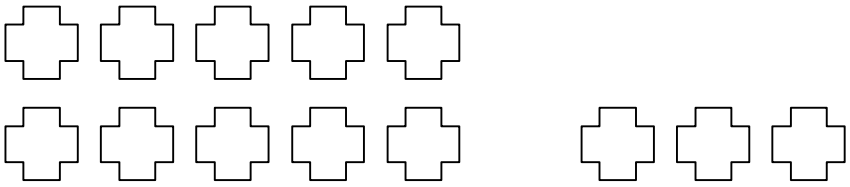
1

Finish counting down from 8 to 1. The number line can help you.

8 7 ☐ ☐ ☐ ☐ ☐ ☐



2



a) How many shapes are there? ☐

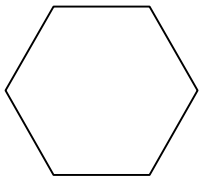
b) Colour five of the shapes red.

c) Colour five other shapes green.

d) How many shapes are not coloured? ☐

e) How many shapes are coloured? ☐

3



a) What is this shape called? ☐

b) How many sides does it have? ☐

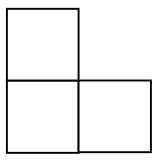
4

a) Is this shape a square? ☐

If it is, write a letter Y in the box.

If it is not a square, write a letter N in the box. ☐

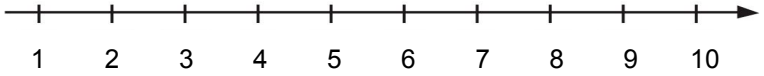
b) Complete this shape so that you get a larger square.



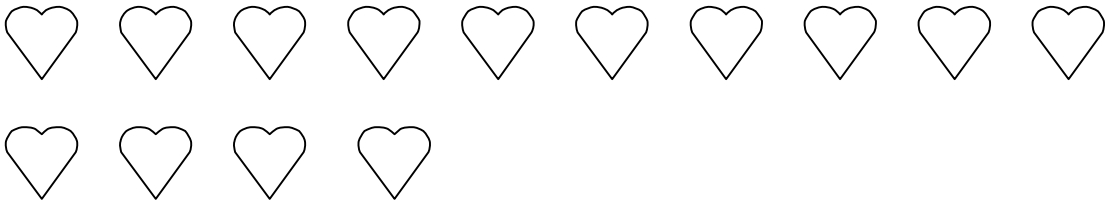
1

Finish counting down from 9 to 1. The number line can help you.

9 8 ☐ ☐ ☐ ☐ ☐ ☐ ☐



2



a) How many shapes are there? ☐

b) Colour ten of the shapes yellow.

c) How many shapes are not coloured? ☐

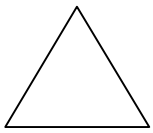
3

a) What is this shape called? ☐

b) How many sides does this shape have? ☐

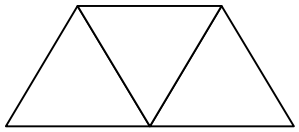
4

a) Is this shape a triangle?



If it is, write a letter Y in the box.
If it is not a triangle, write a letter N in the box. ☐

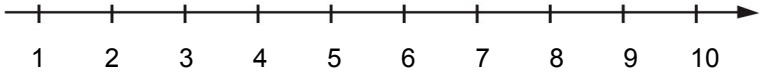
b) Complete this shape so that you get a larger similar triangle.



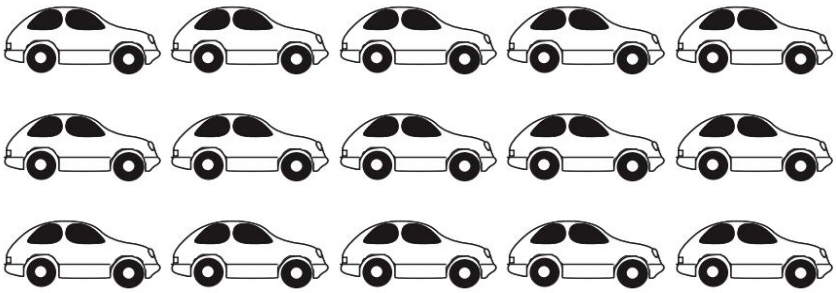
1

Finish counting down from 10 to 1. The number line can help you.

10 9 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



2



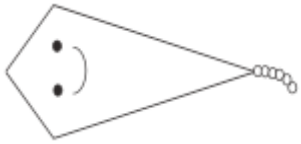
a) How many cars are there? ☐

b) Colour five cars blue.

c) Colour five cars red.

c) How many cars are not coloured? ☐

3

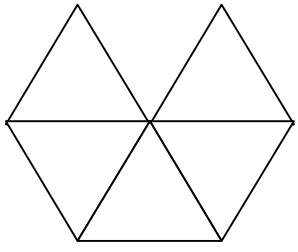


a) What is this shape called? ☐

b) How many sides does it have? ☐

4

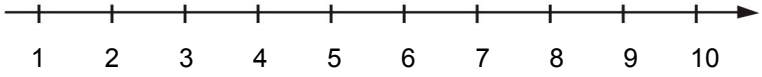
Complete this shape so that you get a hexagon.



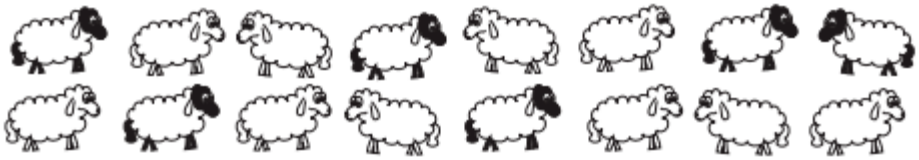
1

Continue the sequence up to 10.
The picture above and the number line can help you.

2, 4, 6, ☐ ☐



2



a) How many lambs are there in the first row? ☐

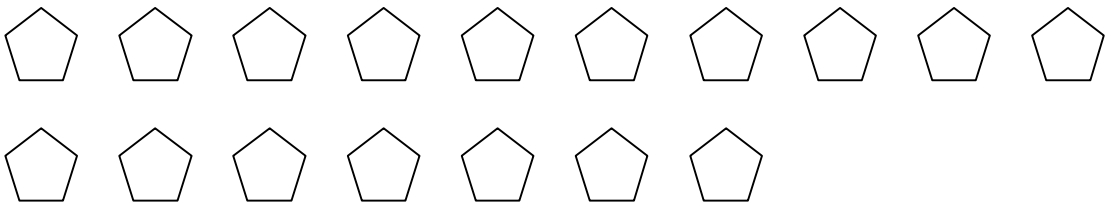
b) How many lambs are there in the second row? ☐

c) How many lambs are there altogether? ☐

d) Colour ten lambs black.

e) How many lambs are not coloured? ☐

3



a) How many shapes are there in the first row? ☐

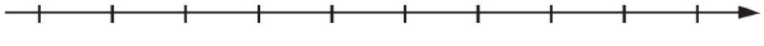
b) How many shapes are there in the second row? ☐

c) How many shapes are there altogether? ☐

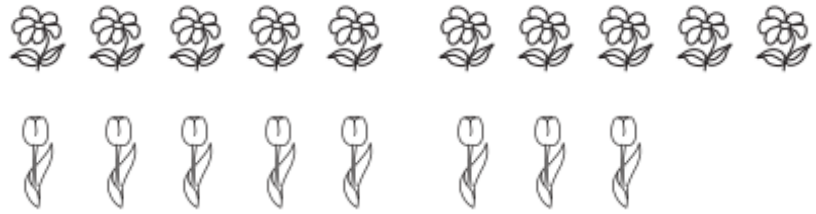
1

Continue the sequence up to 9.
The picture above and the number line can help you.

1, 3, 5, ☐ ☐



2



a) How many flowers are there in the first row? ☐

b) How many flowers are there in the second row? ☐

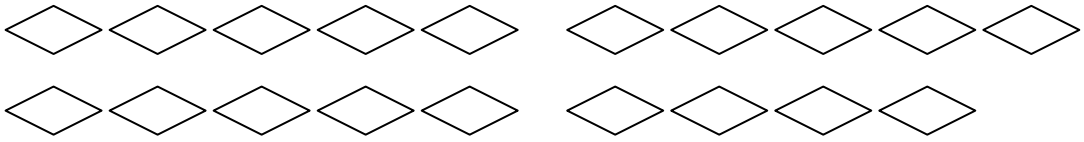
c) How many flowers are there altogether? ☐

d) Colour ten flowers yellow in the first row.

e) Colour five tulips red.

f) How many flowers are not coloured? ☐

3

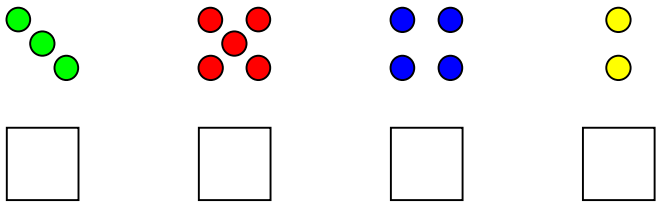


a) How many shapes are there in the first row? ☐

b) How many shapes are there in the second row? ☐

c) How many shapes are there altogether? ☐

1



a) Count the green dots. How many are there? ☐

b) Count the red dots. How many are there? ☐

c) Count the blue dots. How many are there? ☐

d) How many dots are there altogether? ☐

e) Write the number of dots under each set.

2

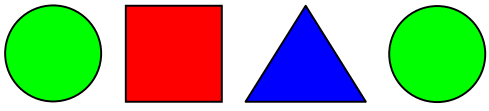
a) How many stars are there in the top row? ☐

b) How many stars are there in the bottom row? ☐

c) How many stars are there altogether? ☐

3

Continue the pattern.



4

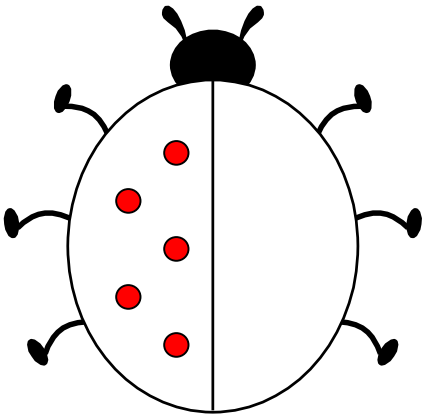
Mum cooked six mini pizzas. Four pizzas were eaten.

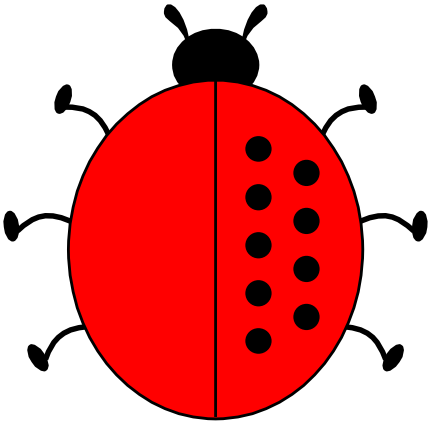
a) Draw the pizzas with circles.

b) Cross out four of them which were eaten.

c) How many pizzas are left? ☐

1 Copy the dots to the other side of each ladybird before answering.

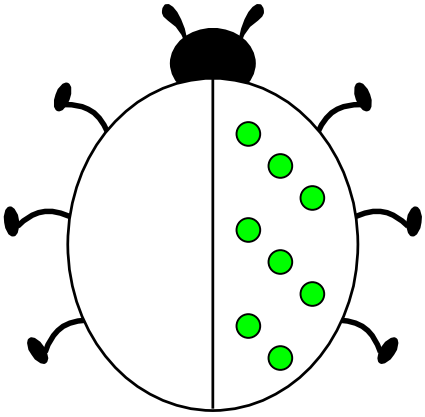


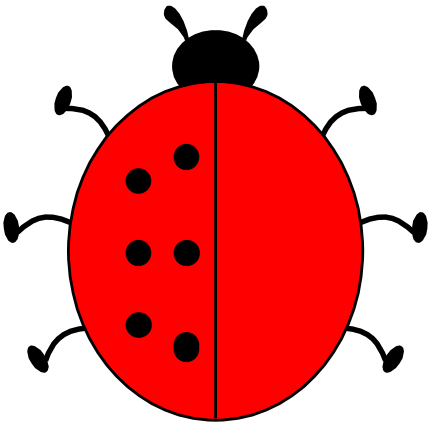


Double 5 is ☐.

Double 9 is ☐.

2 Copy the dots to the other side of each ladybird before answering.





Double 8 is ☐.

Double 6 is ☐.

3 Cover one side of the ladybird before answering.

Half of 14 is ☐.