

# Numbers and Counting

- Understand what a number is
- Count from 0–20 in numbers and words
- Count to 100

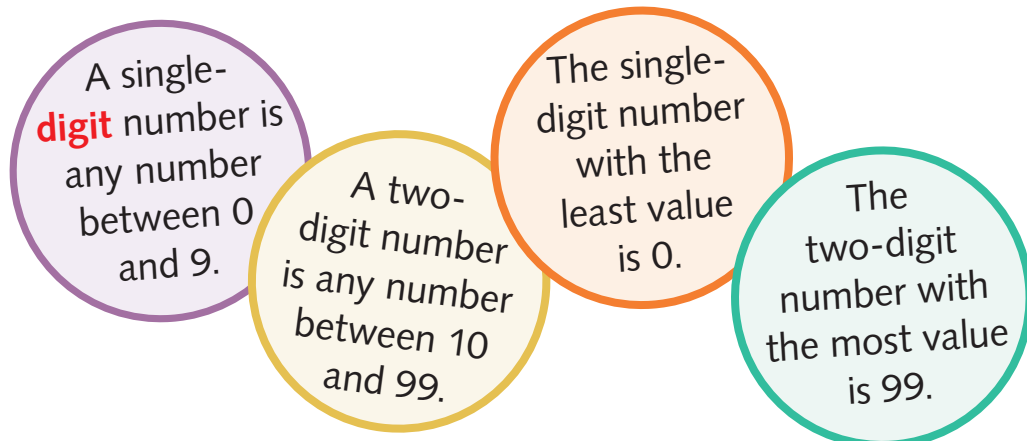
## Numbers

A **number** is a symbol used to count how many there are of something.

Numbers are odd or even. 2, 4, 6 and 8 are even and 1, 3, 5 and 7 are odd.

Each number has a **value**:

1	2	3	4	5
One	Two	Three	Four	Five
6	7	8	9	10
Six	Seven	Eight	Nine	Ten
11	12	13	14	15
Eleven	Twelve	Thirteen	Fourteen	Fifteen
16	17	18	19	20
Sixteen	Seventeen	Eighteen	Nineteen	Twenty



### Key Point

Remember that 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are the only single-digit numbers.

### Key Point

You can count a sequence forwards or backwards but the order of the numbers stays the same.

## Counting

Counting is a way of finding an amount and knowing which number shows that amount.

Each number must follow an **order** or **sequence**:

- The number that has the least value in a sequence is 0.
- Each number above 0 has more value in the sequence.

Numbers are arranged in a sequence according to value:

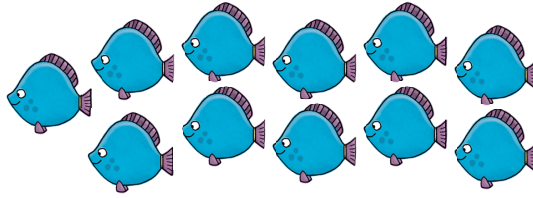
0 1 2 3 4 5 6 7 8 9

Least to most value – single-digit numbers

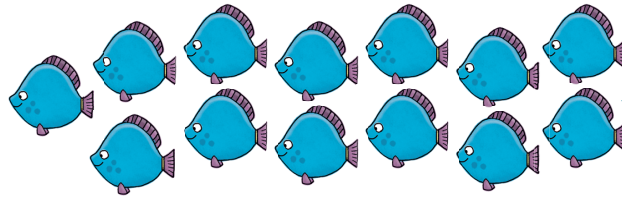
10 11 12 13 14 15 16 17 18 19 20

Least to most value – two-digit numbers to 20

- Here are 11 fish.



- If two more fish join them, count on two more to get 13.



## Revise

The symbol to show the number of fish is 11.

The symbol to show the number of fish now is 13.

## Counting to 100

You need to be able to count to 100. This number square will help you to learn the positions of the numbers from 0–99.

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

100

### Tip

Look for patterns in the number square. For example, the numbers increase by 10 down each column.



### Quick Test

- a) Write the word for the number 4.  
b) Write the number symbol for thirteen.
- Circle the number in this list that has the lowest value and circle the number that has the highest value.

16 17 18 19 20

- Write the missing numbers in the spaces.

	2			5	6		8		
11	12				16		18		

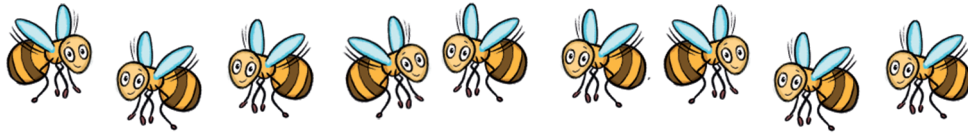
### Key Words

- Number
- Value
- Digit
- Order
- Sequence

# Practice Questions

## Challenge 1

- 1 Look at the bees. Find all ten addition number facts for the total number of bees.




## Challenge 2

- 1 What is the inverse of  $6 + 4 = 10$ ? \_\_\_\_\_
- 2 What is the inverse of  $20 - 10 = 10$ ? \_\_\_\_\_

10 marks

1 mark

1 mark

## Challenge 3

- 1 Answer the following missing number problems.
- a) \_\_\_\_\_ + 1 = 10
- b) 8 + \_\_\_\_\_ = 19
- c) 20 = \_\_\_\_\_ + 17
- d) 14 = \_\_\_\_\_ + 9
- 2 How many bottles would you need to add to have a total of 15 bottles?
- \_\_\_\_\_



4 marks

1 mark

# Review Questions

1 There are 10 cookies on a plate and you eat three of them.

Count back to find how many cookies are left. \_\_\_\_\_




1 mark

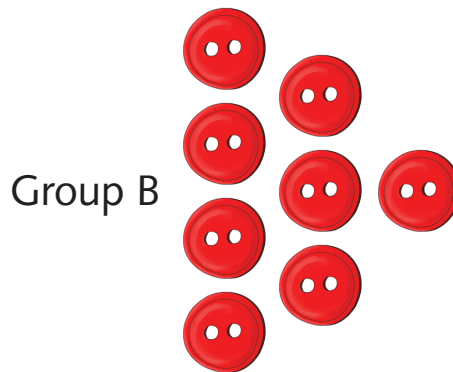
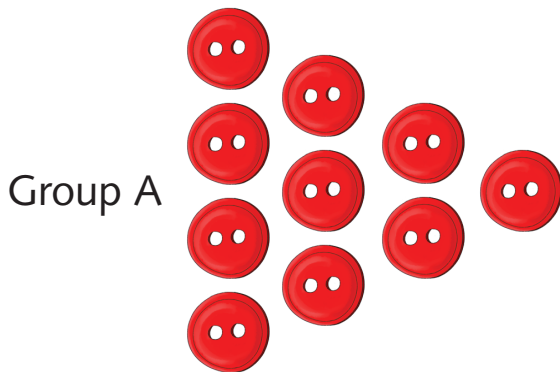
2 Put these numbers in order of value from least to most.

8, 17, 3, 25, 56, 69, 0, 54, 71

\_\_\_\_\_

1 mark

3 Which group has fewer buttons?



Group \_\_\_\_\_

1 mark

4 Partition these two-digit numbers.

a) 23

\_\_\_\_\_

b) 47

\_\_\_\_\_

c) 99

\_\_\_\_\_

d) 13

\_\_\_\_\_

4 marks

5 These stepping stones are counting on to 100. Write the missing numbers on the stones so that they are in the correct sequence.



94		96			99	
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1 mark

# Pictograms, Charts and Graphs

- Interpret and construct simple pictograms, tally charts and block diagrams
- Answer simple questions by counting the number of objects in each category and sorting them by quantity

## What is a Pictogram?

A **pictogram** is a way of showing **information** using pictures.


### Example

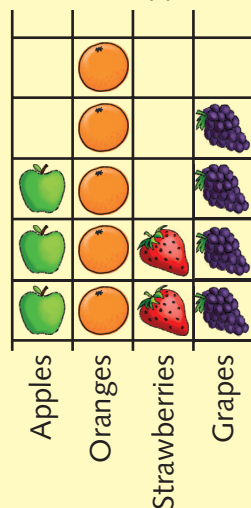
Look at this pictogram. It shows information about snacks brought into school.

The pictogram shows that three children brought an apple, because there are three apples.

How many children brought grapes?

If you count the bunches of grapes, there are four. So four children brought grapes.

Key:  = 1 child brought an apple



### Key Point

The category with the biggest number is the most popular. The category with the smallest number is the least popular.

## Tally Charts

A **tally chart** is used to show data. A tally chart counts in lots of five.

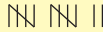





A vertical mark shows one object up to four objects. The fifth object is marked by a diagonal line. So this tally shows 8.

### Example

There are two tallies of five and two lines, so the total is 12.

There is one tally of five and four lines, so the total is 9.

total number





There is one tally of five and one line, so the total is 6.

There are two tallies of five, so the total is 10.

### Key Point

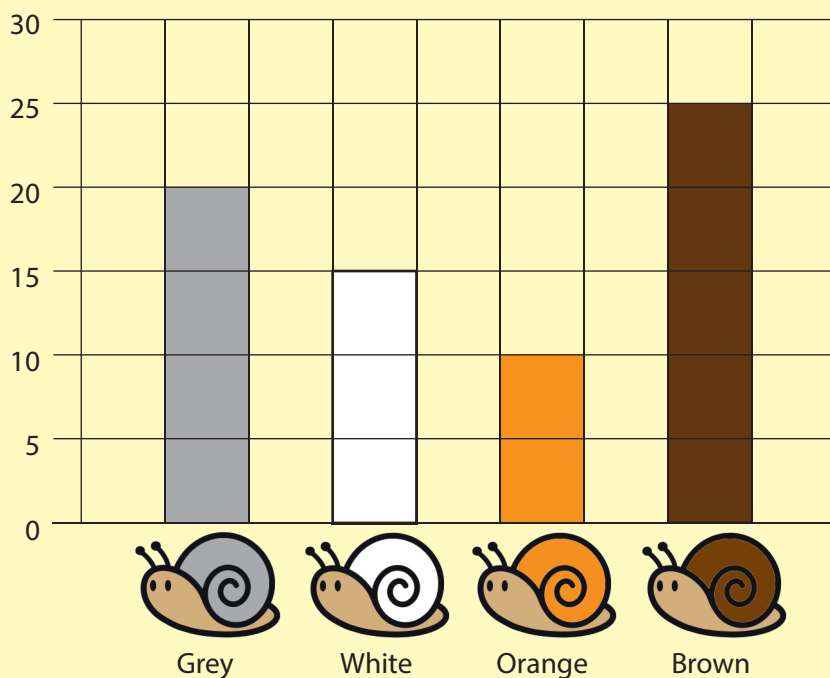
A tally chart counts in lots of five.

## Block Graphs

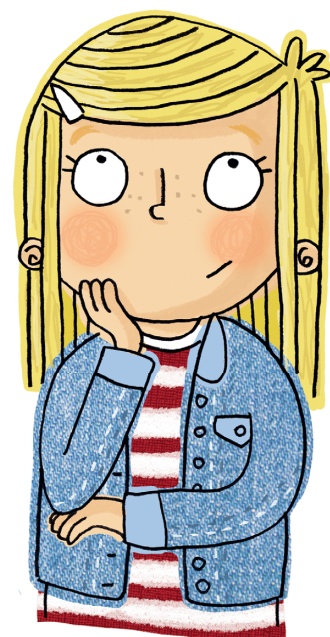
**Block graphs** show information using a number **scale**. They are better at showing larger amounts.

### Example

Look at the graph about snails. If you use the number scale at the side, you can see how many snails were found. The scale counts in lots of five.



The scale tells you that 20 grey snails, 15 white snails, 10 orange snails and 25 brown snails were found.



### Quick Test

- Use the block graph above to answer these questions.
  - What was the most common snail?
  - What was the total of grey and white snails?
  - Fill in this tally chart to represent the information shown in the block graph.

Coloured snail	Tally
Grey	
White	
Orange	
Brown	

### Key Words

- Pictogram
- Information
- Tally chart
- Block graph
- Scale

# Mixed Questions

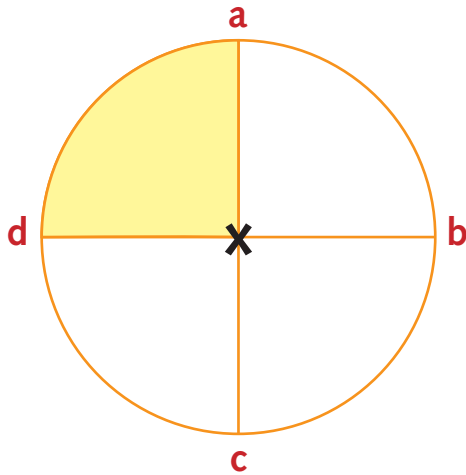
**PS** Problem-solving questions

4 Complete this number pattern:

1, 2, 3, 3, 1, 2 \_\_\_\_\_

1 mark

**PS** 5 Look at the circle. Imagine you are standing on X.



a) Face letter **a** and make an anti-clockwise quarter turn.

Which letter do you see? \_\_\_\_\_

1 mark

b) Face letter **c** and make a half turn clockwise.

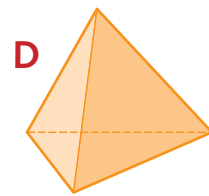
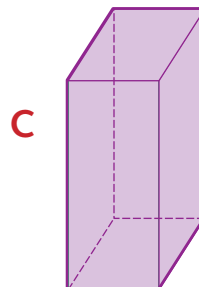
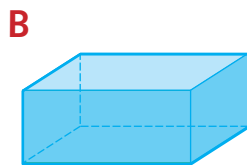
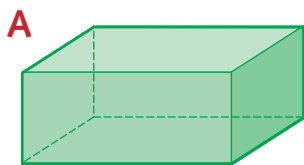
Which letter are you now facing? \_\_\_\_\_

1 mark

c) What fraction of the circle is shaded?

1 mark

6 Tick the 3-D shape that does not belong to the group.



1 mark



# Mixed Questions

**PS** Problem-solving questions

7 Fill in the missing numbers.

a) 

15		25		35	40		
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1 mark

b) 

99	89	79					29
----	----	----	--	--	--	--	----

1 mark

c) 

6			12	14		18	
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1 mark

8 Use the symbol  $<$ ,  $>$  or  $=$  to compare the value of these numbers.

a) 19  56

1 mark

b) 27  27

1 mark

c) 35  14

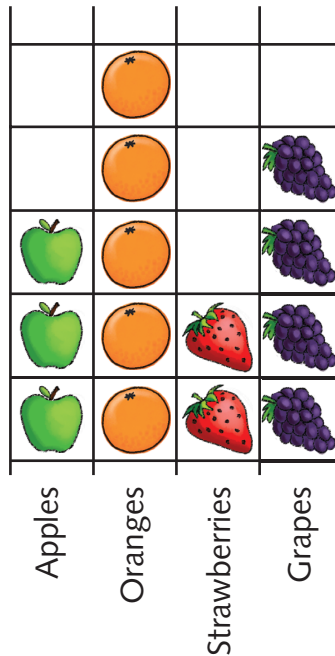
1 mark

d) 99  143

1 mark

**PS** 9 Look at the pictogram.

It shows the snacks that some children brought to school.



Key: 🍏 = 1 child brought an apple

a) How many children brought strawberries? \_\_\_\_\_

1 mark

b) There are \_\_\_\_\_ more oranges than apples.

1 mark

c) What was the favourite snack? \_\_\_\_\_

1 mark

d) How many snacks were brought altogether? \_\_\_\_\_

1 mark