Year 2

Using and applying mathematics

> • **Solve problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence**

There are 4 apples in each pack.
Mrs Pullen buys 3 packs of apples.
How many apples does she buy?

KS1 2001 level 2b

When Desi is 4 years old, Sita is 10.
When Desi is 9 years old, how old will Sita be?

KS1 2004 level 2b

Ella has a one pound coin.
She spends ninety-nine pence.
How much has she left?

KS1 2004 level 2b [oral]

How much money is in the hand?

KS1 2000 level 2b

Desi and Ella share this money equally

How much do they each get?

KS1 2003 level 2b

Mina and Ben play a game.
Mina scores 70 points. Ben scores 42 points.
How many more points does Mina score than Ben?

Y3 optional test 2003 level 2

Ella's dad washes some cars.
He uses 12 buckets of water.
Each bucket has 5 litres of water.

How many litres of water does he use altogether?

KS1 2004 level 2a

Look at this table.

object		length
ruler		30cm
paintbrush		19cm
book		24cm
pencil		15cm
crayon		12cm

Which object is half the length of the ruler?

The ruler is longer than the crayon.
How much longer?

KS1 2009 level 2a

Ella's dad washes some cars.
He uses 12 buckets of water.
Each bucket has 5 litres of water.
How many litres of water does he use altogether?

KS1 2004 level 2a

Emma is 21 years old today.
Her father is 24 years older.
How old is Emma's father?

KS1 2004 level 3

There are 35 children. They get into teams of 5.
How many teams are there altogether?

KS1 2003 level 3

A toy costs eight pounds fifty.
Kemi pays with a ten pound note.
How much change does she get?

KS1 2007 level 3 [oral]

Kiz has a two-pound coin and a five-pence coin.
How much money does he have altogether?

KS1 2005 level 3 [oral]

Ellen has a £5 note. She spends £1.99 Draw a ring around each coin she gets in her change.

KS1 2001 level 3

- **Identify and record the information or calculation needed to solve a puzzle or problem; carry out the steps or calculations and check the solution in the context of the problem**
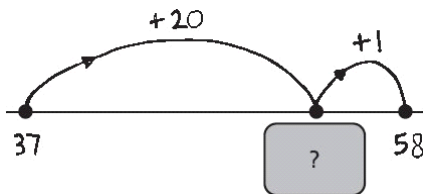
Look at the squares of chocolate.
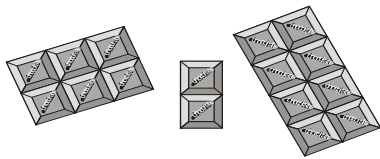
There are 16 squares.
Tick (✓) the sum that matches the picture.

$$5 + 2 + 9 = 16$$
$$5 + 6 + 5 = 16$$
$$6 + 6 + 4 = 16$$
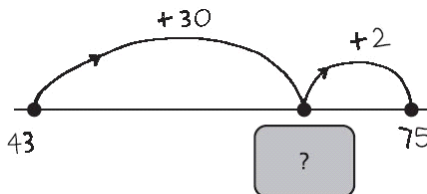$$6 + 2 + 8 = 16$$
$$8 + 3 + 5 = 16$$

KS1 2004 level 2c

Katie drew a number line to help her find the answer to 37 + 21.

What number is hidden under the card?

Y3 optional test 2003 Paper A level 2

Molly drew a number line to find the answer to 43 + 32.

What number is hidden under the card?

Y4 optional test 2003 Paper A level 2

Ben works out the answer to this

$$57 - 16 =$$
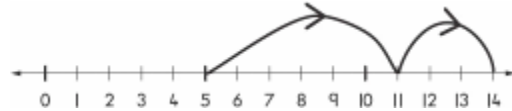
Ben gets the answer 14.
Ben's answer is wrong.

Show Ben how to work out the correct answer in the box.

KS1 2009 level 2a

Look at the number line.
It shows the sum that Fred did.

Tick (✓) the sum that Fred did.

$$5 + 7 + 2 = 14$$
$$5 + 6 + 3 = 14$$
$$5 + 5 + 4 = 14$$
$$5 + 8 + 1 = 14$$

KS1 2005 level 2a

Look at the number sentences.

Use $\boxed{46}$ and $\boxed{54}$ each time to make these correct.

$$\boxed{8} + \boxed{} = \boxed{}$$
$$\boxed{} + \boxed{8} = \boxed{}$$
$$\boxed{} - \boxed{8} = \boxed{}$$
$$\boxed{} - \boxed{} = \boxed{8}$$

KS1 2009 level 2a

There are 60 sweets in a bag.

20 sweets are red.
16 sweets are yellow.
The rest are green.

How many sweets are green?
Show how you work it out in the box.

green sweets

KS1 2003 level 2a

Tara does not know how to work out the answer to this:

$$16 \times 5 =$$

Show Tara how to work out the correct answer in the box.

KS1 2009 level 3

● **Follow a line of enquiry; answer questions by choosing and using suitable equipment and selecting, organising and presenting information in lists, tables and simple diagrams**

Investigate different ways of making 30p using only silver coins.

How many different ways can you find?
Record each different way of doing it.

[oral question]

Class 2 counted the letters in their names. They sorted some of them.

3 letters	4 letters	5 letters	6 letters
Sue	Lucy	Rajiv	Nicole
Bob	Paul	Peter	
Max	Lana		

Sean   Betham   Tom   Lauren

Draw arrows to show where these other names belong. Tom is done for you.

KS1 2002 level 2b

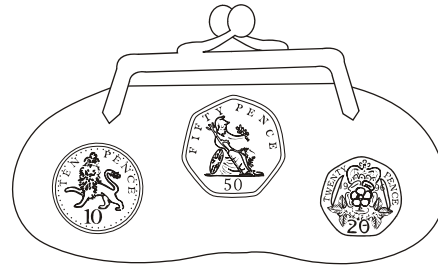Suggest a question you could ask about the information in the completed table.

Ben made a graph.
Tick (✓) the bag that shows Ben's sweets.

Sweets in my bag
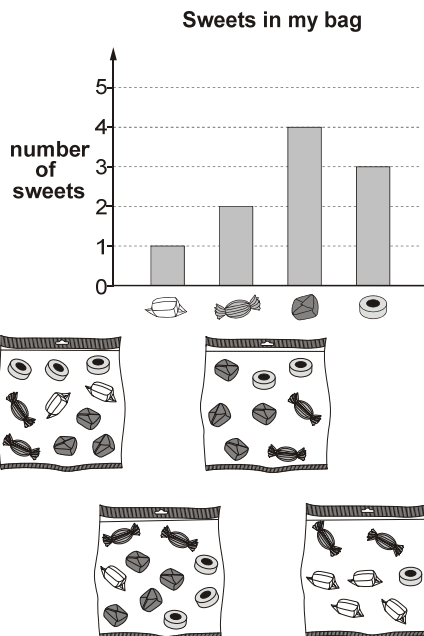
KS1 2009 level 2b

Suggest another question you could ask about the information in the graph.

Suggest two more questions you could ask about the sweets in the four bags.

Abi had 80p in her purse.
Then she lost one of the coins.

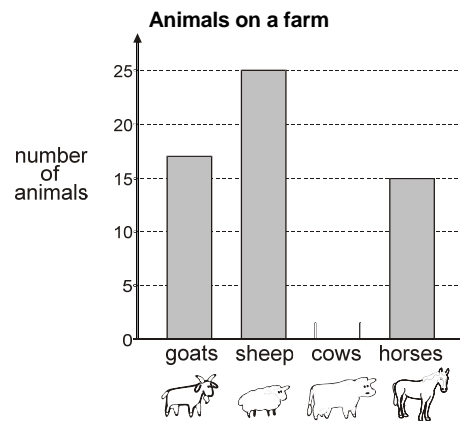How much altogether could be left in her purse now? Write all the different amounts.

	p

	p

	p

KS1 2009 level 2a

Here is a graph.

Animals on a farm

The farm has more sheep than horses.
How many more?

The farm has 5 more cows than horses.
Complete the graph to show the number of cows.

KS1 2009 level 3

Suggest a question you could ask about the information in the completed graph.

- **Describe patterns and relationships involving numbers or shapes, make predictions and test these with examples**

Write the two missing numbers in this sequence.

☐ 41 43 45 47 49 ☐ 53

KS1 2000 level 2b

Write the correct + or – sign in each box.
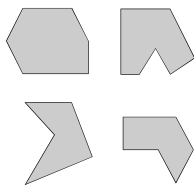
58 ☐ 26 = 84

43 ☐ 17 = 26

33 ☐ 33 = 0

KS1 2001 level 2b

Two of these shapes are not hexagons. Draw a cross (✗) on each shape which is not a hexagon.

KS1 2003 level 2a

Two of these sentences are correct. Tick (✓) them.

A cube has curved faces.
A cube has 6 faces.
A cube has more than 6 corners.
A cube has fewer than 6 edges.

KS1 2009 level 2a

Ella is making 3-digit numbers with these cards.
She can make this number.

7 2 4

Write all the other 3-digit numbers she can make.

7 2 4   ☐ ☐ ☐

☐ ☐ ☐   ☐ ☐ ☐

☐ ☐ ☐   ☐ ☐ ☐

KS1 2004 level 2a

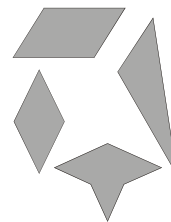Write the missing digits to make this correct.

☐ 0 + 2 ☐ = 3 3

KS1 2004 level 3

Write the missing amounts in this sequence.
The same amount is added each time.

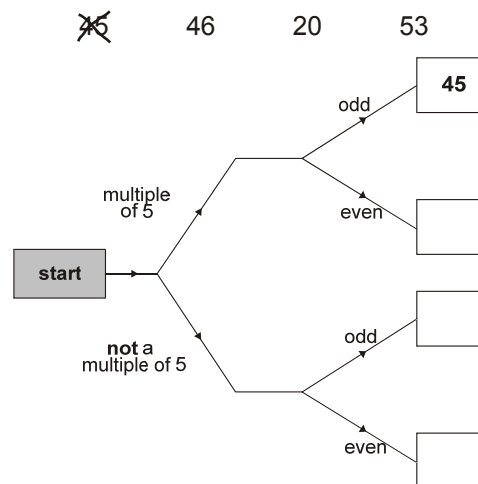£2.65 £2.75 … £2.85 … £3.15

KS1 2004 level 3

Two of these shapes have no lines of symmetry.
Draw a cross (✗) on them. You may use a mirror.

KS1 2004 level 3

Here is a diagram for sorting numbers.
Write each number in the correct box.
One is done for you.

4̶5̶   46   20   53

multiple of 5 → odd → **45**
multiple of 5 → even → ☐

start

not a multiple of 5 → odd → ☐
not a multiple of 5 → even → ☐

KS1 2009 level 3

> - **Present solutions to puzzles and problems in an organised way; explain decisions, methods and results in pictorial, spoken or written form, using mathematical language and number sentences**

Lee buys two of these things to eat.
He spends £1 altogether.
Tick (✓) the two things he buys.

70p

40p

crisps
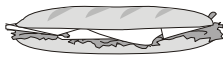
50p

30p

KS1 2007 level 2b

Anna's mum hides some chocolate eggs.

Sara finds 10 eggs.
Carl finds 13 eggs.
Lee finds 11 eggs.
Anna finds 12 eggs.

How many eggs do they find altogether?
Show how you work it out in the box.

eggs

KS1 2007 level 2b

There are 60 sweets in a bag.
20 sweets are red.
16 sweets are yellow.
The rest are green.
How many sweets are green?

Show how you work it out.

KS1 2003 level 2a

There are 15 apples in a tray.
Ling has 4 trays of apples.
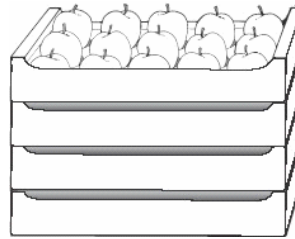
How many apples does Ling have altogether?
Show how you work it out.

KS1 2005 level 2a

Sita worked out the correct answer to 16 × 5.
Her answer was 80.
Show how she could have worked out her answer.

80

.

KS1 2004 level 3

Harry worked out the correct answer to 70 ÷ 5.
His answer was 14.
Show how he could have worked out his answer.

14

KS1 2003 level 3

Counting and understanding number

- **Read and write two- and three-digit numbers in figures and words; describe and extend number sequences and recognise odd and even numbers**

Write `one hundred and seven' as a number.

KS1 1999 level 2c [oral]

Draw a ring around these numbers:
thirty-six, forty-five, seventy-two.

27	54	30
70	45	72
36	40	63

KS1 2005 level 2c [oral]

Write 24 in the correct place on the number grid.

7	8	9	10	11	12
13	14	15	16	17	

KS1 2002 level 2c [oral]

This number line goes up in tens.

Write the correct number in each box.

KS1 2007 level 2a

— l60

— l50

— l40

— l30
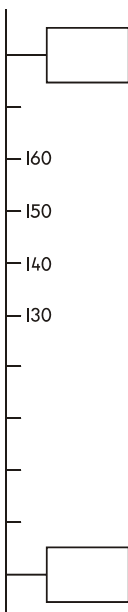
Write an odd number between 32 and 42.

KS1 2003 level 2b [oral]

Draw a cross (✗) on three numbers that are not even.

15		6		7

9		4		18

KS1 2004 level 2b

Draw a ring around each even number.

35   11   28   16   29

KS1 2002 level 2b

This number square is torn.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	
16	17	18		
21	22			

What was the largest number on the square?

KS1 1999 level 2b

Write the missing numbers in this sequence.

47   42   37   ☐   ☐   22   17   12
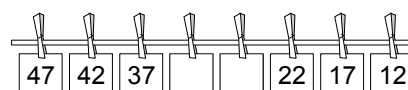
KS1 2002 level 2b

Write the total.

$$200 + 40 + 7 =$$

KS1 2004 level 3

Write a number in the box to make this correct.

$$857 = \boxed{} + 50 + 7$$

KS1 2000 level 2a

- **Count up to 100 objects by grouping them and counting in tens, fives or twos; explain what each digit in a two-digit number represents, including numbers where 0 is a place holder; partition two-digit numbers in different ways, including into multiples of ten and one**

Write the total.

$$60 + 8 \ =$$

KS1 2004 level 2c
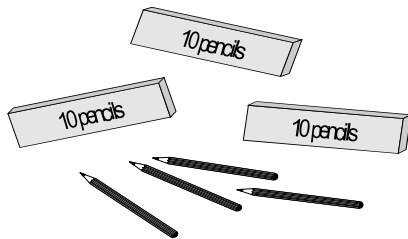
Write a number in the box to make this correct.

$$78 = \boxed{} + 8$$

KS1 2000 level 2c

Write the missing number.

$$\boxed{} + 8 = 68$$

KS1 2003 level 2c

There are 10 pencils in each box and 4 more pencils.

How many pencils are there altogether?

KS1 2003 level 2b

Two purses hold the same amount of money.
Tick (✓) them.
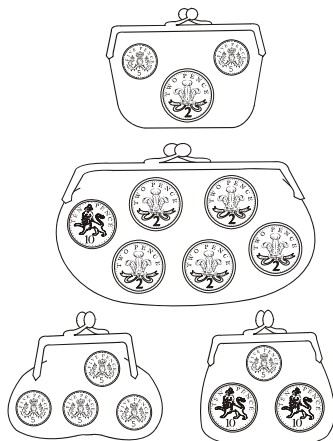
KS1 2007 level 2b

Anna has 50 pencils.
She puts 5 pencils in each party bag.

How many bags does she put pencils in?

KS1 2007 level 2a

Write the missing numbers in each of these patterns.
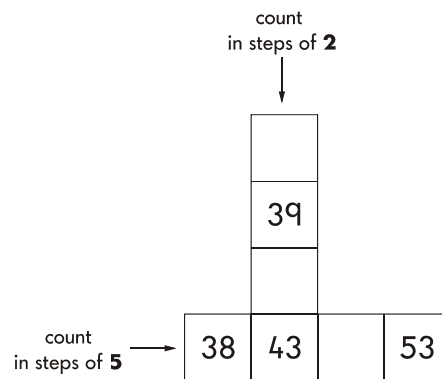
KS1 2007 level 2a

Draw rings around all the multiples of 5.

| 45 | 20 | 54 | 17 | 40 |

KS1 2005 level 3

- **Order two-digit numbers and position them on a number line; use the greater than (>), less than (<) signs**

This sentence is correct.

10 is less than 12 ✓

Two of these sentences are correct. Tick (✓) them.

19 is more than 36

28 is less than 52

50 is more than 15

45 is less than 23

KS1 2007 level 2c

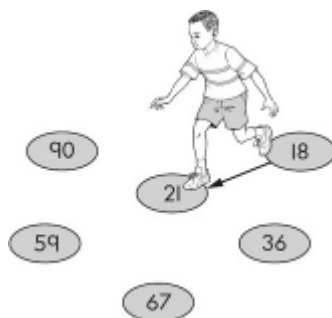Here are some numbers.

43   89   64   ~~28~~   51

Write the numbers in order. One is done for you.

smallest   **largest**

| 28 | | | | |

KS1 2003 level 2c

Desi walks on all the numbers from smallest to largest. Draw arrows (→) to show the path he takes.

KS1 2004 level 2c

Write numbers in the boxes to make these correct.

One is done for you.

37 is more than **25**

37 is between ☐ and ☐ .

37 has ☐ tens

KS1 2009 level 2b

Imagine a number line.
What number is halfway between 11 and 19?

KS1 2003 level 2a

Write the missing number in each box.

19 ——— is **1** less than ———▶ ☐

19 ——— is **10** less than ———▶ ☐

KS1 2002 level 2a

Here are the first two rows on a 100 square.

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

Here is another part of the 100 square. Write the two missing numbers.

KS1 2005 level 3

Look at the number line. The arrow points to fifty. Draw an arrow to show where the number one hundred and twenty-five belongs.
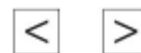

KS1 2005 level 3

Estimate the number marked by the arrow. Write the number in the empty box.
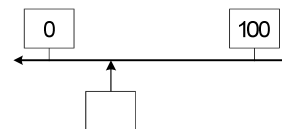
KS1 2003 level 3

Here are two signs.

| < | | > |

Use the signs to make these correct.

52 ☐ 17

18 ☐ 91

50 ☐ 34

Y4 optional test 2003 Paper A level 3

- **Estimate a number of objects; round two-digit numbers to the nearest 10**

Which number is nearest to 80?
Draw a ring around it.

83   84   77   88   78

KS1 2005 level 2b

| 33 | to the nearest 10 is → | 30 |

| 86 | to the nearest 10 is → | |

KS1 2000 level 2b

Write each number in the correct box.

One is done for you.

~~33~~   17   12   28

round to 10	round to 20	round to 30
		33

KS1 2007 level 2a

- **Find one half, one quarter and three quarters of shapes and sets of objects**

One shape is less than half blue.
Tick (✓) it.

KS1 2009 level 2c

Here is a set of 12 pencils.

How many is half the set?
KS1 2002 level 2c

Harry has a set of 22 pencils.
How many is half the set?
KS1 2002 level 2c

Colour $\frac{1}{2}$ of this shape.

KS1 2005 level 2b

Divide this shape into 4 equal parts. Use a ruler

KS1 2003 level 2a

Shade one quarter of this shape.

KS2 2001 level 3

Shade more squares so that $\frac{3}{4}$ of the shape is shaded.

KS1 2003 level 3

Look at the number line Join each fraction to the correct place. One is done for you

$\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{4}$

0   1

KS1 2007 level 3

Knowing and using number facts

• **Derive and recall all addition and subtraction facts for each number to at least 10, all pairs with totals to 20 and all pairs of multiples of 10 with totals up to 100**

What is two add seven?

Y3 optional test 2003 Mental test level 2

What is nine minus four?

Y3 optional test 2003 Mental test level 2

Work out the sum of 13 and 7.

KS1 2002 level 2c [oral]

Add these three numbers: five and five and five.

KS1 2003 level 2c [oral]

Add these numbers: 5 and 6 and 2.

KS1 2001 level 2c [oral]

Add together three, seven and five.

Y4 optional test 2003 Mental test level 2

Write the total.

$$7 + 3 + 8 + 2 =$$

KS1 2004 level 2c

Some children were asked to choose their favourite animal in the zoo. This table shows the results.

	Girls	Boys
zebra	9	3
lion	4	9
giraffe	7	4
monkey	8	7
elephant	6	5

How many more girls than boys chose giraffes?

How many more boys chose lions than elephants?

Which animal was chosen by the greatest number of children?

KS2 2007 Paper B level 3

Ben puts 15 buttons on a table.
He hides some of them under his hand.
How many buttons is Ben hiding?
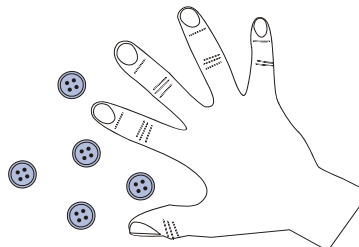
KS1 2009 level 2b

Subtract nine from fourteen.

Y4 optional test 2003 Mental test level 2

What is eleven subtract six?

Y4 optional test 2003 Mental test level 2

Tim bought two fruits.
He spent twenty pence altogether.
He bought an orange for eleven pence.
What did he pay for the other fruit?

KS1 2000 level 2c [oral]

Write the answer.

$$40 + 10 + 50 + 20 =$$

KS1 2005 level 2a

Write the number in the box to make this correct.

$$60 - 40 = 20 + \square$$

KS1 2001 level 3

- **Understand that halving is the inverse of doubling and derive and recall doubles of all numbers to 20, and the corresponding halves**

At the shop, all packets of crisps cost the same.
Hannah buys 2 packets.
She pays 40 pence.
How much does one packet cost?

KS1 2002 level 2c [oral]

Write the missing number. One is done for you.

$5 \rightarrow$ double and add 3 $\rightarrow 13$

$8 \rightarrow$ double and add 3 $\rightarrow \square$

KS1 2003 level 2b

When I doubled a number, the answer was 18.
Which number did I double?

KS1 2001 level 2b [oral]

Write the correct numbers in the boxes.

Half of 12 is $\square$

Double 12 is $\square$

KS1 2009 level 2b

What is double seven?

Y3 optional test 2003 Mental test level 2

What is half of twelve?

Y3 optional test Mental test level 2

What is half of fourteen?

Y4 optional test 2003 Mental test level 2

Mina has thirty-two stickers.
She gives half to her brother.
How many stickers does she give him?

Y3 optional test 2003 Mental test level 2

Write the number which is half of 38.

KS1 2001 level 3 [oral]

What is half of this amount?

KS1 2005 level 3

- **Derive and recall multiplication facts for the 2, 5 and 10 times-tables and the related division facts; recognise multiples of 2, 5 and 10**

Write the missing number in the box.

$\square \times 5 = 50$

KS1 2001 level 2b

Match each one to an answer. You may use an answer more than once.

KS1 1997 level 2a

Draw rings around all the multiples of 5

45   20   54   17   40

KS1 2005 level 2a

Circle two numbers that add to make a multiple of 10.

11   12   13   14   15   16   17   18   19

KS2 2005 level 3

Write the missing number in the box.

$\square \div 2 = 7$

KS1 2001 level 3

Write the missing number in the box.

$5 \times 4 = 10 \times \square$

KS1 2002 level 3

Write the answer.

$45 \div 5 = \square$

KS1 2002 level 3

- **Use knowledge of number facts and operations to estimate and check answers to calculations**

Look at these cards.

| 3 | 1 | 4 | 2 | 6 |
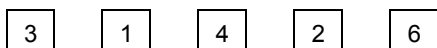
Use one card each time to make these correct.

$$7 + \square = 10$$

$$10 - \square = 4$$

KS1 2001 level 2c

Only one of these is correct. Draw a tick (✓) on it.

5 + 7 = 10
8 + 5 = 18
10 + 10 = 19
9 + 6 = 15
12 + 4 = 14

KS1 2003 level 2c

Write a calculation that you could do to check the answer to 24 ÷ 2 = 12.

Look at each number sentence. Put a tick (✓) if it is correct. Put a cross (✗) if it is not correct.

8 × 2 = 8 + 8   ☐

3 × 10 = 3 + 3 + 3   ☐

5 × 4 = 5 + 5 + 5 + 5   ☐

Y3 optional test 2003 level 2

Write the number in the box to make this correct.

$$60 - 40 = 20 + \square$$

KS1 2001 level 3

Ling wants to check her answer to this addition.

45 + 28 = 73

Which of these tells Ling that her answer is correct?

A   73 + 45 = 118

B   73 – 45 = 28

C   28 + 73 = 91

D   45 – 28 = 17

Calculating

- **Add or subtract mentally a single-digit number or a multiple of 10 to or from any two-digit number; use practical and informal written methods to add and subtract two-digit numbers**

Write the answers.

$$5 + 10 =$$
$$15 + 10 =$$
$$25 + 10 =$$

KS1 2001 level 2c

Write the total.

$$58 + 9 =$$

KS1 2000 level 2c

Write the answer.

$$30 - 15 =$$

KS1 2003 level 2b

Write the answer.

$$54 + 19 =$$

KS1 2009 level 2b

Write the number which is 11 less than 40.

KS1 2004 level 2a

What is thirty subtract nineteen?

KS1 2007 level 2a [oral]
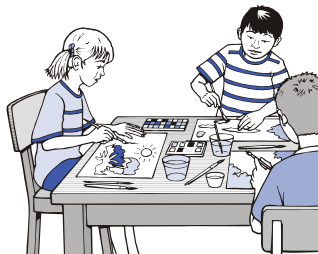
There are 29 children. 5 children are painting. How many children are not painting?

KS1 2007 level 2b

12 children are on a bus.
8 children get off the bus.
Then 4 more children get off the bus.
Tick (✓) the number of children left on the bus.

8   20   14

KS1 2009 level 2b

Tick (✓) the two numbers which total 50.
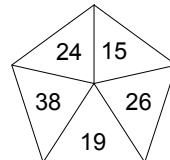
KS1 2002 level 2a

Write the total.

$$24 + 68 =$$

KS1 2007 level 2a

Write the total.

$$61 + 11 =$$

KS1 2004 level 3

Write the total.

$$36 + 29 =$$

KS1 2002 level 2a

Write the answer.

$$75 - 43 =$$

KS1 2007 level 2a

Write the answer.

$$82 - 45 =$$

KS1 2004 level 3

Add together 24, 67 and 45.

KS1 2001 level 2a

Write the answer.

$$63 - 37 =$$

KS1 2002 level 3

Work out the difference between 46 and 18.

KS1 2000 level 3

Write the answer.

$$150 + 56 =$$

KS1 2005 level 3

What is twenty-seven subtract nine?

Y3 optional test 2003 Mental test level 3

- **Understand that subtraction is the inverse of addition and vice versa; use this to derive and record related addition and subtraction number sentences**

Twenty-three children are on the bus.

Four children get off and four children get on. How many children are on the bus now?

KS1 2005 level 2c [oral]

Look at the numbers in this addition.

$$\boxed{9} \; + \; \boxed{5} \; = \; \boxed{14}$$

Use the same numbers to make these correct.

$$\boxed{} \; - \; \boxed{} \; = \; \boxed{9}$$

$$\boxed{} \; + \; \boxed{9} \; = \; \boxed{}$$

KS1 2005 level 2b

Put a number in the box to make this correct.

$$38 - \boxed{} = 11$$

KS1 1997 level 2a

Write numbers in the boxes to make this correct.

$$18 + \boxed{} - \boxed{} = 18$$

KS1 2003 level 3

- **Represent repeated addition and arrays as multiplication, and sharing and repeated subtraction (grouping) as division; use practical and informal written methods and related vocabulary to support multiplication and division, including calculations with remainders**

There are 4 apples in each pack.
Mrs Pullen buys 3 packs of apples.
How many apples does she buy?

KS1 2001 level 2b

Ella puts these coins in a box.

How much does she put in the box altogether?

KS1 2004 level 2c

How many [2p coin] coins make 20p?

KS1 2005 level 2b

Ella has 12 counters.
She puts them into threes like this.
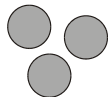
How many threes can she make altogether?

She puts the same number of counters into fours.
How many fours can she make altogether?

KS1 2004 level 2b

There are 10 candles in a packet.
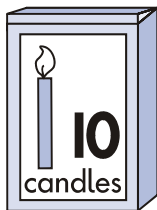
Abi needs 50 candles.
How many packets does Abi need altogether?

KS1 2009 level 2b

Write the answer.

$$6 \times 2 =$$
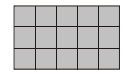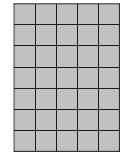
KS1 2007 level 2b

Match each addition to a multiplication.
One is done for you.

3 × 4

| 4 + 4 + 4 + 4 + 4 |

6 × 5

| 3 + 3 + 3 | ———— 3 × 3

6 × 4

| 6 + 6 + 6 + 6 + 6 |

4 × 5

| 6 + 6 + 6 |

6 × 3

KS1 2004 level 3

Complete the table. The first row is done for you.

	1 × 5	5
	3 × 5	
		35

KS1 2007 level 3

23 children are coming to John's party.
Each child will get 1 ice cream.
There are 10 ice creams in a box.
How many boxes does John need to buy?

KS1 2001 level 2a

Desi needs 18 balloons.
The shop sells balloons in packs of 5.
How many packs does he need to buy?

KS1 2003 level 2a

There are 20 eggs.
A box holds 6 eggs.
How many boxes are needed to hold all the eggs?

KS1 2000 level 2a

- **Use the symbols +, −, ×, ÷ and = to record and interpret number sentences involving all four operations; calculate the value of an unknown in a number sentence, e.g.**
  $\square \div 2 = 6$, $30 - \square = 24$

Write four different numbers to make these correct.

$$\square + \triangle = 17$$
$$\diamondsuit + \bigcirc = 17$$

KS1 2003 level 2c

Write numbers in the boxes to make this correct.

$$13 + \square + \square = 23$$

KS1 2005 level 2c

Here are some signs.

| + | − | × | ÷ |

Write the correct sign in each box.
One is done for you.

$$3 \boxed{+} 3 = 6$$
$$3 \boxed{} 3 = 1$$
$$3 \boxed{} 3 = 9$$

KS1 2009 level 3

Write the same number in each triangle to make the multiplication correct.

$$\triangle \times \triangle = 100$$

KS1 2004 level 2b [oral]

Write the missing number in the box.

$$\square \times 10 = 50$$

KS1 2001 level 2b

Write the missing number in the box.

$$\square \div 2 = 7$$

KS1 2001 level 2a

Write the missing number in the box.

$$5 \times 4 = 10 \times \square$$

KS1 2002 level 3

Understanding shape

- **Visualise common 2-D shapes and 3-D solids; identify shapes from pictures of them in different positions and orientations; sort, make and describe shapes, referring to their properties**

Two of these shapes are not hexagons. Draw a cross (✗) on each shape which is not a hexagon.
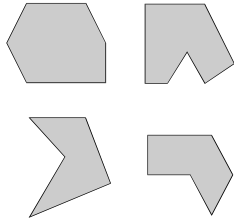
KS1 2003 level 2a

Look at this shape.

How many right angles does it have?

KS1 2005 level 3

Look at the shape names. They say:

square, hexagon, rectangle, pentagon, octagon.

One of these shapes has exactly two more sides than a triangle. Tick the correct shape.

KS1 2009 level 3 [oral]

Write each word in the correct box.

| faces | | edges | | vertices |

A cube has
- 6 ☐
- 8 ☐
- 12 ☐
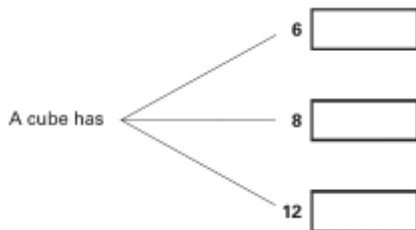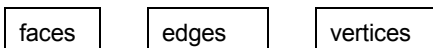
Y3 optional test 2003 level 2

Write the missing numbers in the 2 empty boxes.

	number of square faces	number of triangular faces	number of circular faces
cylinder	0	0	
cube		0	0
pyramid	1	4	0

KS1 2000 level 2a

Tick (✓) each picture of a cylinder.
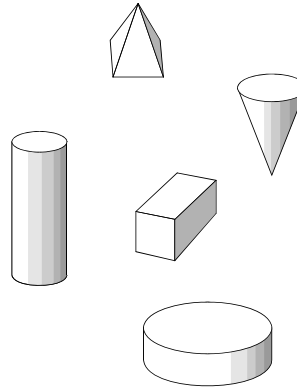
KS1 2003 level 2a

Two of these sentences are correct.
Tick (✓) them.

A cube has curved faces.

A cube has 6 faces.

A cube has more than 6 corners.

A cube has fewer than 6 edges.

KS1 2009 level 2a

Imagine a cube.
Four faces are yellow, the rest are blue.
How many faces are blue?

KS1 2003 level 3 [oral]

Look at the shape names. They say:

cylinder, cube, pyramid, cuboid.

Two of these shapes always have six faces.
Tick the names of the two shapes.

KS1 2007 level 3 [oral]

Complete the table.

	number of faces	number of edges
cuboid	6	12
square-based pyramid	5	

Y3 optional test 2003 level 3

- **Identify reflective symmetry in patterns and 2-D shapes and draw lines of symmetry in shapes**

[Hold up a square so that all the children can see it.]

Tick which of these shape I can make if I fold this square in half.
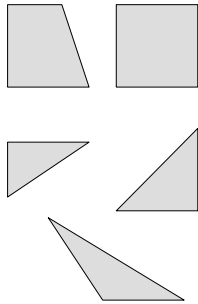
KS1 2001 level 2c [oral]

Draw the reflection of this pattern in the mirror line. You may use a mirror.

mirror line
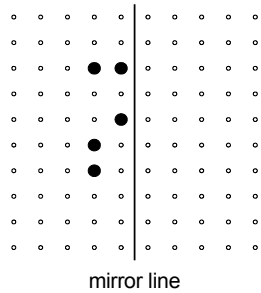
KS1 1999 level 2c

Here is a picture of a shape. The shape has been folded in half along the dotted line.

Imagine opening it up.
How many sides does the opened shape have?
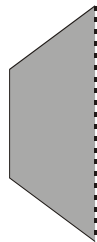
KS1 2004 level 2a [oral]

Two of these shapes have no lines of symmetry. Draw a cross (✗) on them. You may use a mirror.
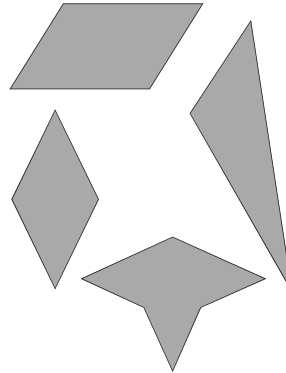
KS1 2004 level 3

Draw the reflection of the shape in the mirror line. You may use a mirror.
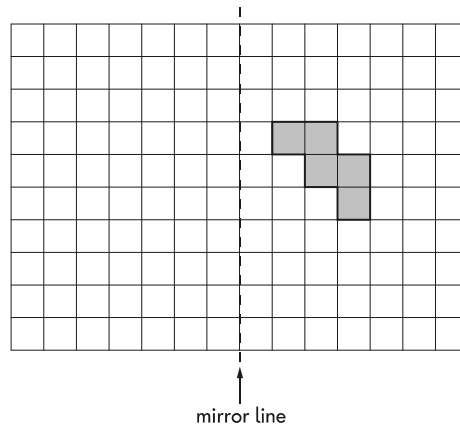
mirror line

KS1 2007 level 3

Draw the reflection of this shape in the mirror line. You may use a mirror.

mirror line
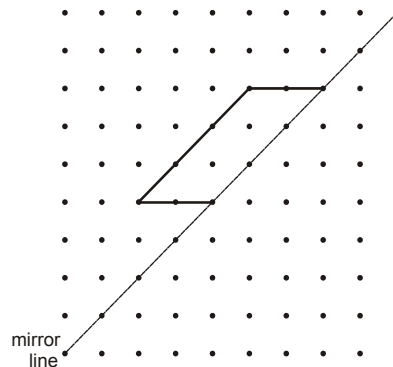
KS1 2009 level 3

• Follow and give instructions involving position, direction and movement

Use the grid to help you complete this table.

trees	B2
slide	
seesaw	
	A3

KS1 1998 level 2c

The tick (✓) is in square B5.

Draw a cross (✗) in square D2.

KS1 2002 level 2b

.Look at the L shape on the grid.

Part of it is in square B5.
Write the other two squares it is in.

KS1 2009 level 3

Alan slid his finger along this route from START to STOP.
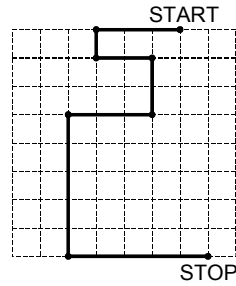
He started writing how his finger moved. Complete the moves.

left 3
down 1
right 2
down 2
_____
_____
_____

KS1 1999 level 2a

Follow this route with your pencil.
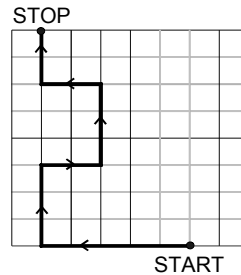
Complete this chart showing the route from START to STOP.

START
left 5
up 3
right 2
………
………
………
STOP

Y3 optional test level 3

- **Recognise and use whole, half and quarter turns, both clockwise and anti-clockwise; know that a right angle represents a quarter turn**

Watch me as I rotate (turn) this picture of a clown.

[Rotate the clown smoothly and continuously through a full turn, keeping it facing the children at all times.]

Which of your pictures shows what the clown will look like if I rotate (turn) my picture a half-turn?
Tick the picture.
[Do not rotate your picture this time.]
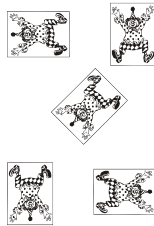
KS1 1999 level 2b

Shade the correct triangle in the last hexagon.

KS1 2004 level 2a

Look at this toy car.
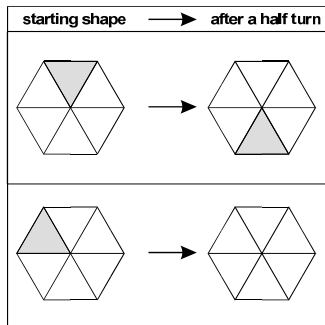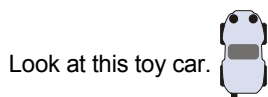
Lee turns the car one quarter turn.
Tick (✓) the picture which shows how the car looks after the turn.
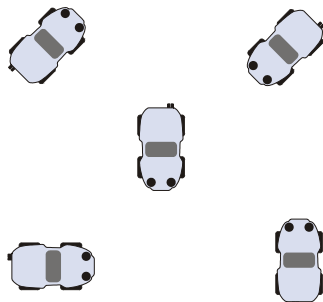
KS1 2007 level 2a

What will this arrow look like after a half turn?
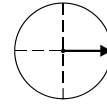
Tick (✓) the drawing a,b,c or d which shows this.
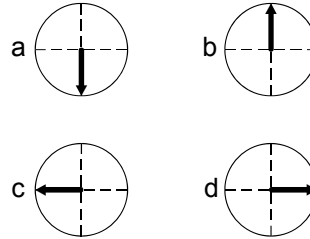
Y3 optional test level 3

Draw how this triangle will look after a half turn.
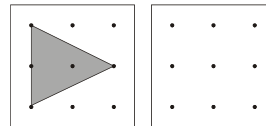
KS1 2002 level 3

Here is a triangle.

Tom turns it one quarter turn clockwise.

Tick (✓) the triangle which shows how it looks after the turn.
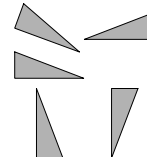
KS1 2002 level 3

One shape is a pentagon and has a right angle.
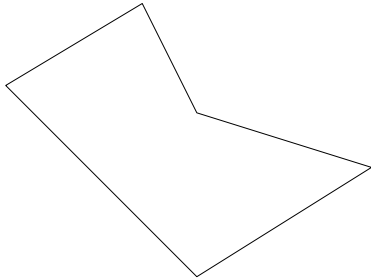Tick the correct shape.
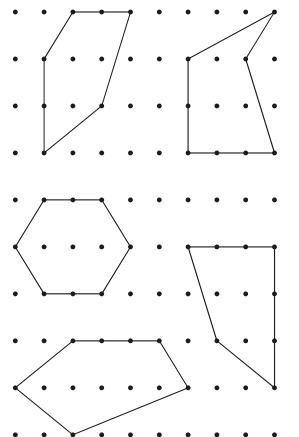
KS1 2004 level 3 [oral]

Measuring

- **Estimate, compare and measure lengths, weights and capacities, choosing and using standard units (m, cm, kg, litre) and suitable measuring instruments**

Tick (✓) the side of the shape which is 7cm (centimetres) long. Use a ruler.

KS1 1999 level 2c

Draw a line 12 centimetres long.
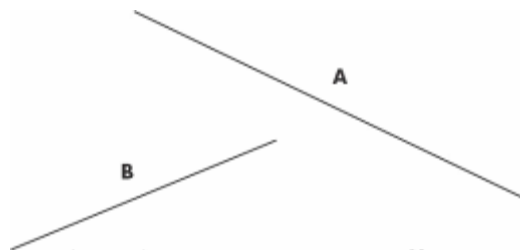Use a ruler.

KS1 2004 level 2b

Three sticks fit along one side of this book.

A WET DAY

Estimate how many sticks fit around all four sides of the book.

KS1 2009 level 2a

Measure these two lines.

A

B

How much longer is line A than line B?

KS1 2005 level 2a

How much does the bottle hold?
Match the correct label to the bottle.

Lemonade

| **2** centimetres |
| **2** kilograms |
| **2** litres |
| **2** metres |
| **2** grams |

KS1 1997 level 2a

Choose a word from the box to finish each sentence.

kilograms
litres
metres
hours

I can measure the length of the classroom in …

I can measure the capacity of a bucket in …

KS1 1999 level 2a

Look at the mug I am holding. One of these amounts is the estimate of the capacity of this mug.

Tick the correct amount.

1 metre   1 litre   1 centimetre

$\frac{1}{4}$ kilogram $\frac{1}{4}$ litre

KS1 2005 level 3

On my 3rd birthday, I was 95cm tall.

Now I am 28cm taller.

Sita

How tall is Sita now?

KS1 2003 level 3

- **Read the numbered divisions on a scale, and interpret the divisions between them, e.g. on a scale from 0 to 25 with intervals of 1 shown but only the divisions 0, 5, 10, 15 and 20 numbered; use a ruler to draw and measure lines to the nearest centimetre**

How much does the bag weigh?
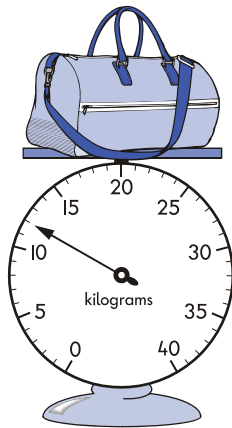
KS1 2007 level 2b

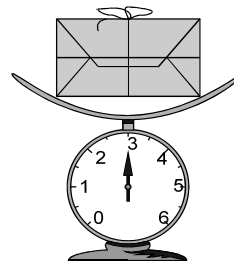Draw a line 3 cm longer than this line.
Use a ruler.

_____

KS1 2000 level 2a

Here is a pattern of lines.
Draw the missing line in the pattern.
Use a ruler.

2 cm	▬
4 cm	▬▬
6 cm	▬▬▬
cm	
10 cm	▬▬▬▬▬

KS1 2007 level 2a

How much does this parcel weigh?
Match the correct label to the parcel.

- 3 centimetres
- 3 kilograms
- 3 metres
- 3 litres
- 3 kilometres

KS1 2000 level 2b

How heavy is Peter?
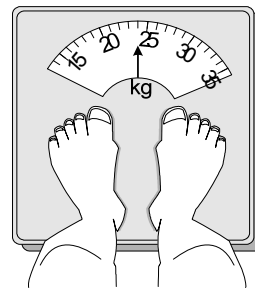
KS1 2002 level 2a

Here is a scale which shows the weight of a letter.
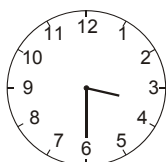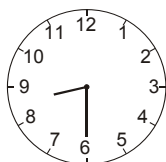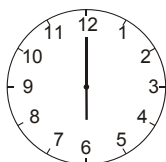
How much does the letter weigh?

Y3 optional test 2003 Paper A level 3

- **Use units of time (seconds, minutes, hours, days) and know the relationships between them; read the time to the quarter hour; identify time intervals, including those that cross the hour**

Look at this clock.
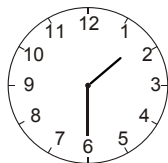
What time will the clock show two hours later?
Tick (✓) it.
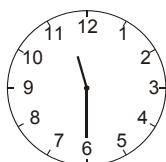
KS1 2004 level 2b

The bus left at 9 o'clock to go to the zoo.
It arrived 1 hour and 15 minutes later.
Draw a ring around the time it got to the zoo.

9:15   11:15   9:30

10:45   10:15

KS1 2001 level 2b

Sita's watch shows this time.

3:30

Harry's watch shows the same time.
Draw the hands on his watch.

KS1 2004 level 3

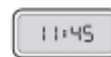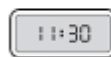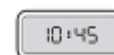How many months are there in one year?

KS1 2003 level 2c

A week has 7 days.
How many weeks are there in 35 days?

KS1 2000 level 2a

Jane leaves home at ten-fifteen.
It takes her half an hour to get to the seaside.
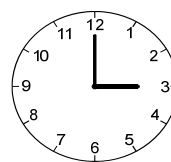At what time does Jane get to the seaside?

KS1 2004 level 3 [oral]
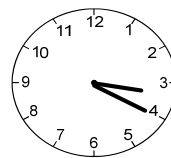
Two clocks show the same time.
Tick (✓) them.

10:45

11:30

11:45

Y3 optional test 2003 level 3

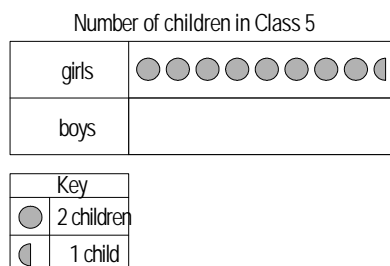Harry leaves school at

He gets home at

How long does he take to get home?

KS1 2003 level 3

Handling data

- **Answer a question by collecting and recording data in lists and tables; represent the data as block graphs or pictograms to show results; use ICT to organise and present data**
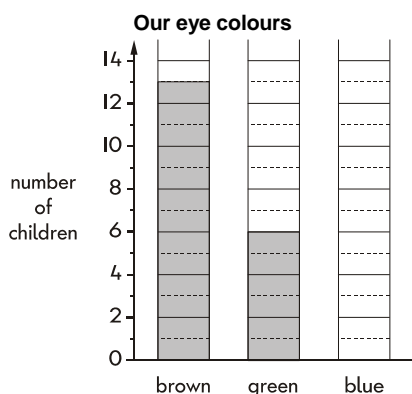
Look at this pictogram.

Number of children in Class 5

girls	⚬⚬⚬⚬⚬⚬⚬◖
boys	

Key	
⚬	2 children
◖	1 child

There are 12 boys in Class 5.
Show this on the pictogram.

KS1 2002 level 2a

Class 2 make a graph.
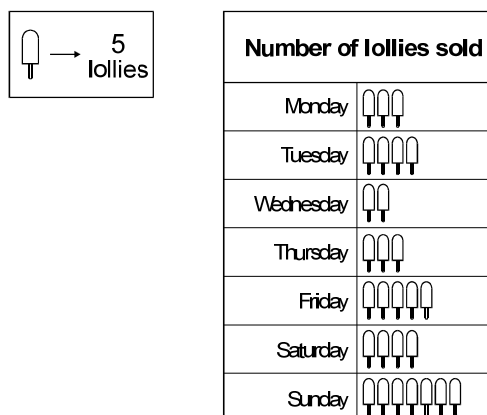
Our eye colours

5 children have blue eyes. Show this on the graph.

More children have brown eyes than green eyes. How many more?

KS1 2007 level 2a

A shop sold 10 ice lollies on Wednesday.

How many lollies were sold on Monday?

How many more lollies were sold on Tuesday than on Wednesday?
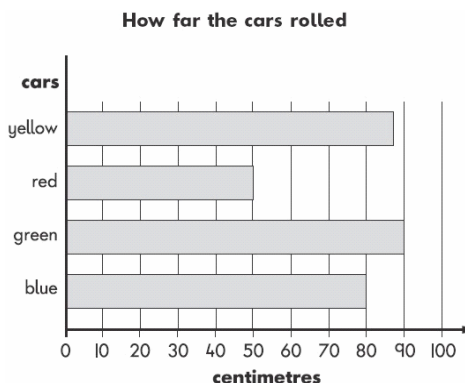
Y3 optional test 2003 level 2

The tally chart shows the number of children in each class.

Class	Tally	Total
Class 1	卌 卌	10
Class 2	卌 卌 卌 卌 ‖	22
Class 3		13
Class 4	卌 卌 卌 ‖	17

The tally for Class 3 is covered up.
Complete the tally for Class 3.

KS1 2004 level 2a

Some children rolled toy cars down a slope.
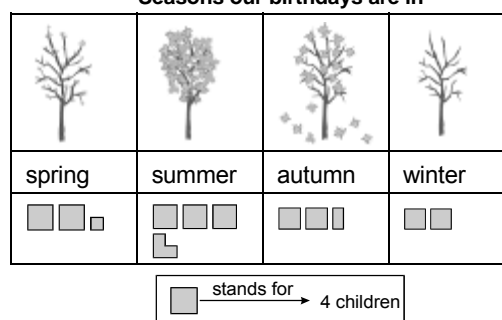
How far the cars rolled

How far did the blue car roll?
How much further did the green car roll than the red car?

KS1 2005 level 2a

Seasons our birthdays are in

There is an even number of birthdays in 2 seasons. Which seasons are they?

How many children have a birthday in the summer?

KS1 2003 level 3

- **Use lists, tables and diagrams to sort objects; explain choices using appropriate language, including *not***

This table shows the ages of some children.

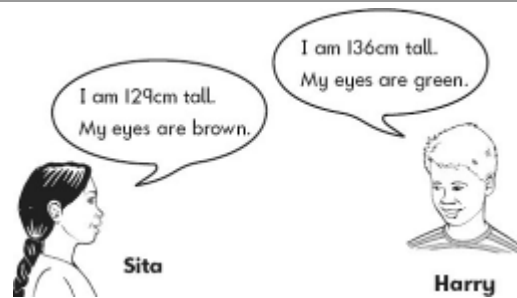| Name	Age	
Fred	7 years	4 months
Harriet	7 years	0 months
Isla	6 years	10 months
Julian	7 years	6 months
Kate	6 years	11 months
Asim	6 years	11 months

Who is the youngest?

How many children are older than Harriet?

KS1 2001 level 2b

These shapes have been sorted.
One shape is in the wrong place.
Draw a cross (✘) on it.

octagons   not octagons

KS1 2004 level 2a

Write Sita's and Harry's names in the correct boxes on the diagram.

	is taller than 130cm	is not taller than 130cm
has brown eyes		
does not have brown eyes		

KS1 2004 level 3

Acknowledgment