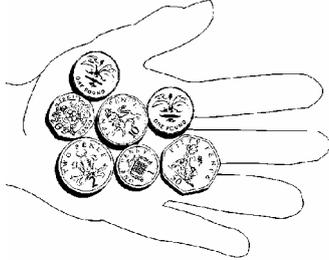
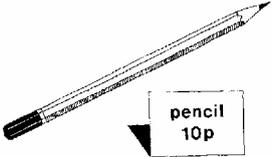


## Year 2

### Using and applying mathematics

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

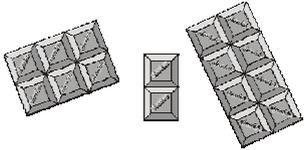
<p>There are 4 apples in each pack. Mrs Pullen buys 3 packs of apples. How many apples does she buy? <b>KS1 2001 level 2b</b></p>	<p>Mina and Ben play a game. Mina scores 70 points. Ben scores 42 points. How many more points does Mina score than Ben? <b>Y3 optional test 2003 level 2</b></p>
<p>When Desi is 4 years old, Sita is 10. When Desi is 9 years old, how old will Sita be? <b>KS1 2004 level 2b</b></p>	<p>Emma is 21 years old today. Her father is 24 years older. How old is Emma's father? <b>KS1 2004 level 3</b></p>
<p>Ella has a one pound coin. She spends ninety-nine pence. How much has she left? <b>KS1 2004 level 2b [oral]</b></p>	<p>Ella's dad washes some cars. He uses 12 buckets of water. Each bucket has 5 litres of water.</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>How many litres of water does he use altogether? <b>KS1 2004 level 2a</b></p>
<p>How much money is in the hand?</p> <div style="text-align: center; margin: 10px 0;">  </div> <p><b>KS1 2000 level 2b</b></p>	<p>There are 35 children. They get into teams of 5. How many teams are there altogether? <b>KS1 2003 level 3</b></p>
<p>Anna has 54p. She buys as many pencils as she can.</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>How much money will she have left? <b>KS1 1998 level 2b</b></p>	<p>Desi and Ella share this money equally</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>How much do they each get? <b>KS1 2003 level 2b</b></p>
<p>Janet spent 23p. Put a circle around the 2 items she bought.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin: 10px 0;"> <div style="text-align: center;">   <span style="border: 1px solid black; padding: 2px;">crisps 16p</span> </div> <div style="text-align: center;">   <span style="border: 1px solid black; padding: 2px;">orange 18p</span> </div> <div style="text-align: center;">   <span style="border: 1px solid black; padding: 2px;">cake 9p</span> </div> <div style="text-align: center;">   <span style="border: 1px solid black; padding: 2px;">biscuit 7p</span> </div> </div> <p>She used 3 coins to pay the 23p. Put a circle around each coin she used.</p> <div style="text-align: center; margin: 10px 0;">  </div> <p><b>KS1 1997 level 2b</b></p>	<p>What is half of this amount?</p> <div style="text-align: center; margin: 10px 0;">  </div> <p><b>KS1 2005 level 3</b></p>
<p><b>KS1 2001 level 2b</b></p>	<p>Ellen has a £5 note. She spends £1.99 Draw a ring around each coin she gets in her change.</p> <div style="text-align: center; margin: 10px 0;">  </div> <p><b>KS1 2001 level 3</b></p>

Framework review

- 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

You have 27p.  
Buy a drink for 10p.  
How much money do you have left?  
Write a subtraction to show what you did.  
**KS1 1999 level 1 [oral]**

Look at the squares of chocolate.

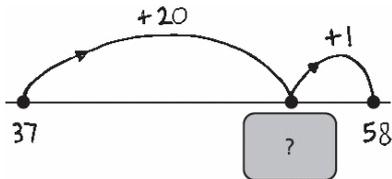


There are 16 squares.  
Tick (✓) the sum that matches the picture.

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

**KS1 2004 level 2c**

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



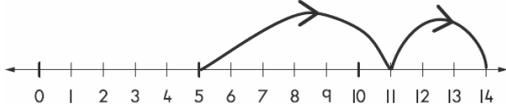
What number is hidden under the card?  
**Y3 optional test 2003 level 2**

Here are five identical triangles.  
Use some or all of the triangles to make a bigger triangle.



**[oral question]**

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**

Mr Bell had three pots with four pencils in each pot.  
How many pencils did he have altogether?  
Which one of these would you use to work out the answer to the question?

A  $4 + 4$   
 B  $3 + 3$   
 C  $4 \times 3$   
 D  $3 + 4$

**KS1 1997 level 2a**

Tick (✓) the square which is exactly halfway between squares A1 and G7.

7							
6							
5							
4							
3							
2							
1							
	A	B	C	D	E	F	G

**KS1 2005 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

This table shows how the children in a class come to school.

Ways of coming to school	Number of children
walk 	14
taxi 	1
bus 	6
car 	8

More children walk than come by bus. How many more?

How many children are in the class altogether?

**KS1 1997 level 2b**

Bethan has 6p. She wants to buy a drink.



drink 40p   
  apple 10p   
  banana 18p   
  crisps 23p

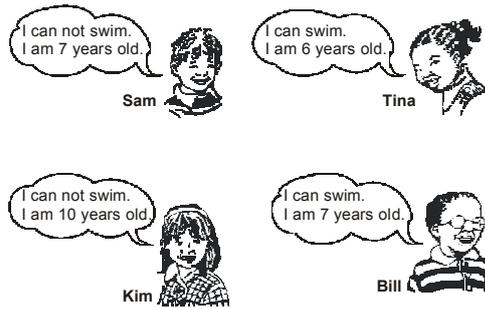
How much more money does she need?

**KS1 1996 level 2a**

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

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

**[oral question]**



Write the name of each child in the correct place on the diagram.

	is 7 years old	is not 7 years old
can swim		
can not swim		

**KS1 1998 level 2b**

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

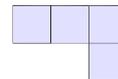
3 letters	4 letters	5 letters	6 letters
<input type="checkbox"/> Sue	<input type="checkbox"/> Lucy	<input type="checkbox"/> Rajiv	<input type="checkbox"/> Nicole
<input type="checkbox"/> Bob	<input type="checkbox"/> Paul	<input type="checkbox"/> Peter	
<input type="checkbox"/> Max	<input type="checkbox"/> Lana		

Sean     Bethan     Tom     Lauren

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

**KS1 2002 level 2b**

This shape is made from four identical squares touching edge to edge.



Make different shapes from four identical squares touching edge to edge.  
Record each different shape that you make.

**[oral question]**

Framework review

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

Think of an even number which is more than 20 and less than 40.

**KS1 1998 level 2b**

Fill in the two missing numbers in this sequence.

28	24	20		12	8		0
----	----	----	--	----	---	--	---

**KS1 1997 level 2b**

Write the two missing numbers in this sequence.

$\square$  41 43 45 47 49  $\square$  53

**KS1 2000 level 2b**

Write the correct + or – sign in each box.

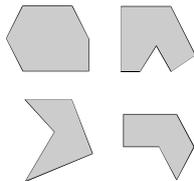
$58 \square 26 = 84$

$43 \square 17 = 26$

$33 \square 33 = 0$

**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**

Write numbers in the boxes to make this correct.

$\square \div \square = 5$

**KS1 1998 level 3**

Write the missing digits to make this correct.

$\square \square 0 + 2 \square = 3 \square 3$

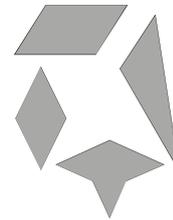
**KS1 2004 level 3**

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**

Framework review

- 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

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**

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

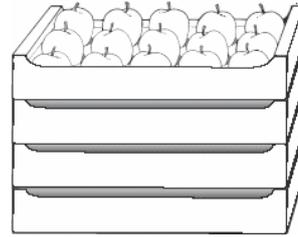
7 2 4

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

7 2 4	□ □ □
□ □ □	□ □ □
□ □ □	□ □ □

**KS1 2004 level 2a**

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  $9 \times 5$ . Her answer was 45. Show how she could have worked out her answer.

**KS1 2004 level 3 [adapted]**

Harry worked out the correct answer to  $40 \div 5$ . His answer was 4. Show how he could have worked out his answer.

**KS1 2003 level 3 [adapted]**

## Counting and understanding number

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

Write the number thirty-two.

**KS1 1997 level 2c [oral]**

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]**

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

15	6	7
9	4	18

**KS1 2004 level 2b**

Write an odd number between 32 and 42.

**KS1 2003 level 2b [oral]**

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**

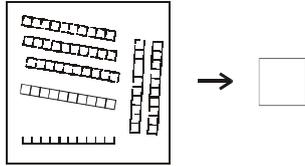
Write the numbers missing from these sequences.

11		13	14	15
		33		
		42		

**KS1 1999 level 3**

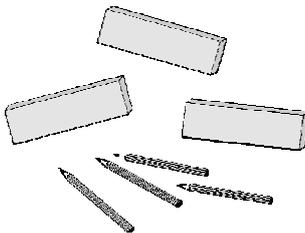
- Count up to 100 objects by grouping them and counting in tens, fives or twos; explain what each digit in a two-digit number represents, including numbers where 0 is a place holder; partition two-digit numbers in different ways, including into multiples of 10 and 1

Fill in the missing number.



**KS1 1997 level 2c**

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



How many pencils are there altogether?

**KS1 2003 level 2b**

30 children are in the class. How many pairs of children are there in the class?

**KS1 1997 level 2b [oral]**

Draw rings around all the multiples of 5.

45    20    54    17    40

**KS1 2005 level 3**

Write a number in the box to make this correct.

$$78 = \square + 8$$

**KS1 2000 (adapted) level 2c**

Write the missing number.

$$\square + 8 = 68$$

**KS1 2003 level 2c**

Write the total.

$$60 + 8 =$$

**KS1 2004 (adapted) level 2c**

Put a number in the box to make this correct.

$$100 = \square + 42$$

**KS1 1998 level 3**

Framework review

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

Here are some numbers.

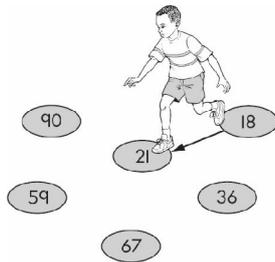


Write the numbers in order. One is done for you.

Smallest largest

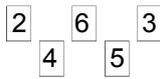
**KS1 2003 level 2c**

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



**KS1 2004 level 2c**

Look at these cards.



Use two of the cards to make a number between 30 and 40.

**KS1 1998 level 2c**

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

**KS1 2003 level 2a**

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

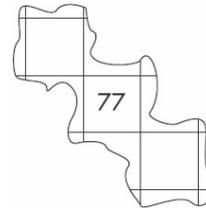


**KS1 2005 level 3**

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 these signs.

> = <

Use one of the signs to make this correct.

25  19

- 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

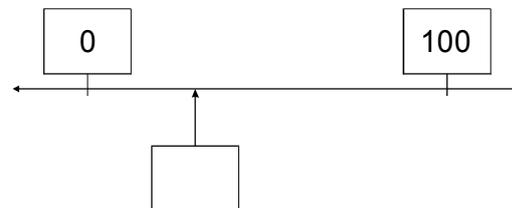
**KS1 2005 level 2b**

→ to the nearest 10 is →

→ to the nearest 10 is →

**KS1 2000 level 2b**

Estimate the number marked by the arrow.  
Write the number in the empty box.



**KS1 2003 level 3**

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

Mary eats half of these cherries.



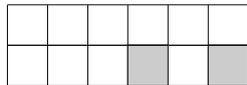
How many does she eat?

**KS1 1999 level 2b**

Harry has a set of 22 pencils.  
How many is half the set?

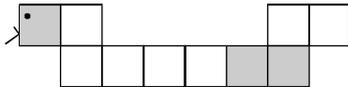
**KS1 2002 level 2c [adapted]**

Shade more squares so that exactly half of the shape is shaded.



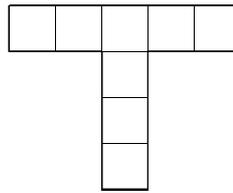
**Y3 optional test 1998 level 2**

3 squares on the snake are filled in.  
Fill in more squares to cover half of the snake.



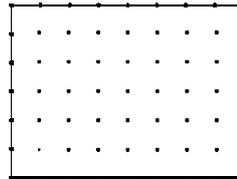
**KS1 1997 level 2a**

Shade one quarter of this shape.



**KS2 2001 level 3**

Divide this shape into 4 equal parts. Use a ruler



**KS1 2003 level 2a**

What is half of this amount?



**KS1 2005 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**

<p>What is two add seven? <b>Y3 optional test 2003 Mental test level 2</b></p>	<p>Tim bought two fruits. He spent twenty pence altogether. He bought an orange for eleven pence. What did he pay for the other fruit? <b>KS1 2000 level 2c [oral]</b></p>
<p>What is nine minus four? <b>Y3 optional test 2003 Mental test level 2</b></p>	<p>Tim is thinking of a number. It is 10 more than 20. What number is Tim thinking of? <b>KS1 1999 level 2c [oral]</b></p>
<p>Work out the sum of 13 and 7. <b>KS1 2002 level 2c [oral]</b></p>	<p>Write the total. <math>7 + 3 + 8 + 2 =</math> <b>KS1 2004 level 2c</b></p>
<p>Add these three numbers: five and five and five. <b>KS1 2003 level 2c [oral]</b></p>	<p>Write a number in the box to make this correct. <math>2 + 8 = 6 + \square</math> <b>KS1 1999 level 2b</b></p>
<p>Add these numbers: 5 and 6 and 2. <b>KS1 2001 level 2c [oral]</b></p>	<p>Write the answer. <math>40 + 10 + 50 + 20 =</math> <b>KS1 2005 level 2a</b></p>
	<p>Write the number in the box to make this correct. <math>60 - 40 = 20 + \square</math> <b>KS1 2001 level 3</b></p>

Framework review

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

Desi makes cakes with these.

1	egg	
4	spoons of flour	
2	spoons of sugar	
3	spoons of milk	

Ella makes double the number of cakes. Write the missing numbers.

2	eggs	
<input type="text"/>	spoons of flour	
<input type="text"/>	spoons of sugar	
<input type="text"/>	spoons of milk	

**KS1 1997 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**

When I doubled a number, the answer was 18.  
Which number did I double?  
**KS1 2001 level 2b [oral]**

Write the missing number. One is done for you.  
5 → double and add 3 → 13  
8 → double and add 3 →   
**KS1 2003 level 2b**

There are thirty children in a classroom. Half of them are girls. How many are boys?  
**KS1 1997 level 2b [oral, adapted]**

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 number which is half of 38.  
**KS1 2001 level 3 [oral]**

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**

Framework review

- 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.

$7 \times 5$	35
$2 \times 8$	40
$5 \times 2$	10
$20 \div 2$	16
$45 \div 5$	15
	9

**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 [adapted]**

---

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**

Put a number in the box to make this correct.

$$3 + \square + 9 = 17$$

**KS1 1998 level 2b**

---

Put a number in the box to make this correct.

$$32 + 6 = 40 - \square$$

**KS1 1997 level 3**

---

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.

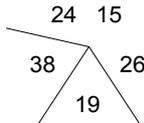
$$45 + 28 = 73$$

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

<p>Write the answers.</p> <p><math>5 + 10 =</math>  <math>15 + 10 =</math>  <math>25 + 10 =</math></p> <p><b>KS1 2001 level 2c</b></p>	<p>Write the total.</p> <p><math>61 + 11 =</math></p> <p><b>KS1 2004 level 3</b></p>
<p>Write the total.</p> <p><math>35 + 40 =</math></p> <p><b>KS1 1998 level 2c</b></p>	<p>Write the total.</p> <p><math>36 + 29 =</math></p> <p><b>KS1 2002 level 2a</b></p>
<p>Find the answer.</p> <p><math>72 - 8 =</math></p> <p><b>KS1 1999 level 2c</b></p>	<p>Write the answer</p> <p><math>79 - 34 =</math></p> <p><b>KS1 1996 level 2a</b></p>
<p>Write the total.</p> <p><math>58 + 9 =</math></p> <p><b>KS1 2000 level 2c</b></p>	<p>Write the answer.</p> <p><math>82 - 45 =</math></p> <p><b>KS1 2004 level 3</b></p>
<p>Write the answer.</p> <p><math>30 - 15 =</math></p> <p><b>KS1 2003 level 2b</b></p>	<p>Write the answer.</p> <p><math>63 - 37 =</math></p> <p><b>KS1 2002 level 3</b></p>
<p>Write the answer</p> <p><math>25 + 10 + 9 =</math></p> <p><b>KS1 1997 level 2a</b></p>	<p>Write the number which is 11 less than 40.</p> <p><b>KS1 2004 level 2a</b></p>
<p>Tick (✓) the two numbers which total 50.</p> <div style="text-align: center;">  </div> <p><b>KS1 2002 level 2a</b></p>	<p>Work out the difference between 46 and 18.</p> <p><b>KS1 2000 level 3</b></p>
	<p>Write the answer.</p> <p><math>150 + 56 =</math></p> <p><b>KS1 2005 level 3</b></p>
	<p>What is twenty-seven subtract nine?</p> <p><b>Y3 optional test 2003 Mental test level 3</b></p>

Framework review

- 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.

$$\boxed{\phantom{0}} - \boxed{\phantom{0}} = \boxed{9}$$

$$\boxed{\phantom{0}} + \boxed{9} = \boxed{\phantom{0}}$$

**KS1 2005 level 2b**

Put a number in the box to make this correct.

$$38 - \boxed{\phantom{0}} = 11$$

**KS1 1997 level 2a**

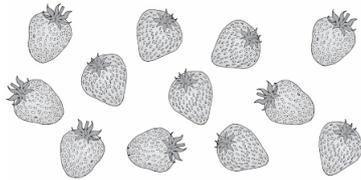
Write numbers in the boxes to make this correct.

$$18 + \boxed{\phantom{0}} - \boxed{\phantom{0}} = 18$$

**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

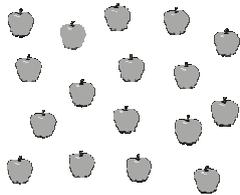
Some children share 12 strawberries. Each child gets 3 strawberries.



How many children are there?

**Y3 optional test 2003 level 2**

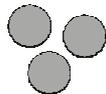
John puts these apples in bags.



He puts 5 apples in each bag. How many apples will be left over?

**KS1 1997 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 4 apples in each pack.  
Mrs Pullen buys 3 packs of apples.  
How many apples does she buy?

**KS1 2001 level 2b**

Alex buys 6 packets of stickers.  
There are 5 stickers in each packet.  
How many stickers does he buy?

**KS1 1999 level 2a**

20 children sit at tables in groups of 4.  
How many groups will there be?

**KS1 1999 level 2a**

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

$8 \times 2 = 8 + 8$

$3 \times 10 = 3 + 3 + 3$

$5 \times 4 = 5 + 5 + 5 + 5$

**Y3 optional test 2003 level 2**

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

$3 \times 4$

$4 + 4 + 4 + 4 + 4$

$6 \times 5$

$3 + 3 + 3$

$3 \times 3$

$6 + 6 + 6 + 6 + 6$

$6 \times 4$

$6 + 6 + 6$

$4 \times 5$

$6 \times 3$

**KS1 2004 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.

$$\square + \triangle = 17$$

$$\diamond + \circ = 17$$

**KS1 2003 level 2c**

Write numbers in the boxes to make this correct.

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

**KS1 2005 level 2c**

Look at these signs.

$$+ \quad \times \quad - \quad =$$

Use one of the signs to make this correct.

$$9 \square 2 = 11$$

Now use the signs to make this one correct.

$$14 \square 2 \square 12$$

**KS1 1997 level 2c**

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.

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

**KS1 2002 level 3**

Write the missing number in the box.

$$\square \div 2 = 7$$

**KS1 2001 level 2a**

Put a number in the box to make this correct.

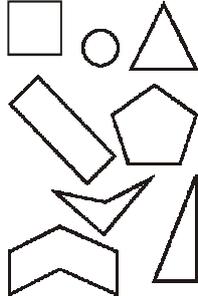
$$100 = \square + 42$$

**KS1 1998 level 3**

## Understanding shape

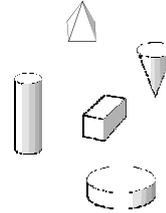
- Visualise common 2-D shapes and 3-D solids; identify shapes from pictures of them in different positions and orientations; sort, make and describe shapes, referring to their properties

Find a shape which is called a pentagon. Put a tick in it.



KS1 1997 level 2b

Tick (✓) each picture of a cylinder.

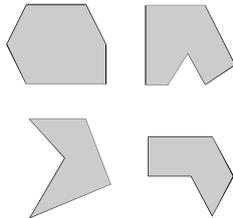


KS1 2003 level 2a

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

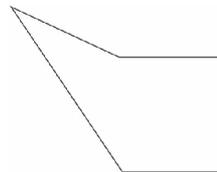
KS1 2003 level 3 [oral]

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.

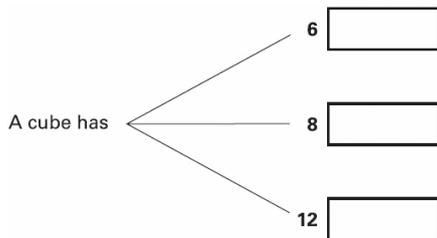


How many right angles does it have?

KS1 2005 level 3

Write each word in the correct box.

faces      edges      vertices



Y3 optional test 2003 level 2

Complete the table.

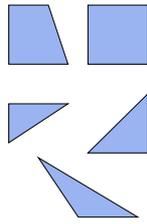
	number of faces	number of edges
 cuboid	6	12
 square-based pyramid	5	<input type="text"/>

Y3 optional test 2003 level 3

Framework review

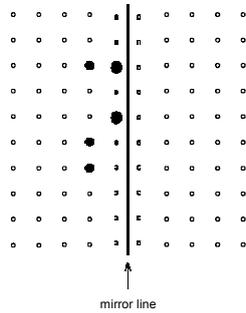
- Identify reflective symmetry in patterns and 2-D shapes and draw lines of symmetry in shapes

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



**KS1 1999 level 2c**

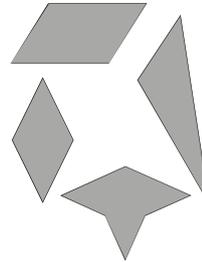
Here is a picture of a shape. The shape has been folded in half along the dotted line.

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**



Framework review

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

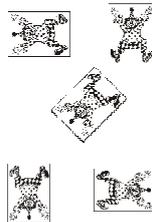
Watch me as I rotate (turn) this picture of a clown.



[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.]



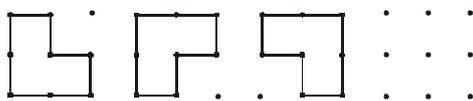
**KS1 1999 level 2b**

Shade the correct triangle in the last hexagon.

starting shape	→	after a half turn
	→	
	→	

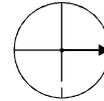
**KS1 2004 level 2a**

Draw the next shape in this pattern of quarter turns.

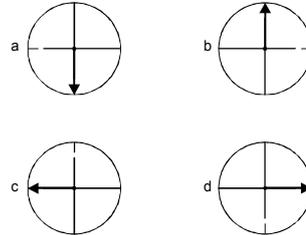


**KS1 1996 level 2a**

What will this arrow look like after a half turn?

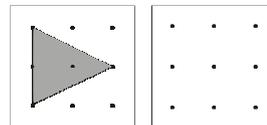


Tick (✓) the drawing a,b,c or d which shows this.



**Y3 optional test level 3**

Draw how this triangle will look after a half turn.



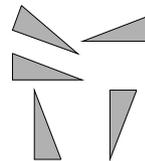
**KS1 2002 level 3**

Here is a triangle.



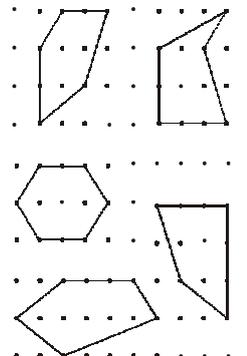
Tom turns it one quarter turn clockwise.

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.

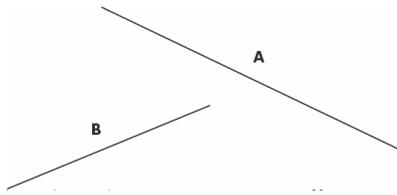


**KS1 2004 level 3 [oral]**

## Measuring

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

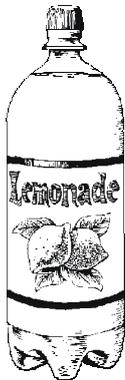
Measure these two lines.



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.



2 centimetres

2 kilograms

2 litres

2 metres

2 grams

**KS1 1997 level 2a**

Put a ring around how long you think this line is.



5 cm 16 cm 8 cm 12 cm 20 cm

**KS1 1997 level 3**

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. The amounts say:

one metre, one litre, one centimetre, one quarter of a kilogram, one quarter of a litre.

Tick the correct amount.

1 metre    1 litre    1 centimetre

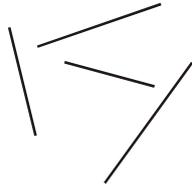
$\frac{1}{4}$  kilogram     $\frac{1}{4}$  litre

**KS1 2005 level 3 [oral]**

Framework review

- 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

Find the longest line. How long is it? Use a ruler.



KS1 1996 level 2b

How long is a line 3 cm longer than this line? Use a ruler.

\_\_\_\_\_

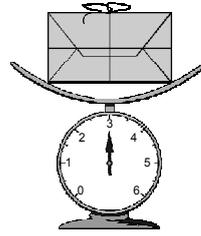
KS1 2000 level 2a

Draw one line which is twice as long as this line. Use a ruler.

\_\_\_\_\_

KS1 1998 level 3

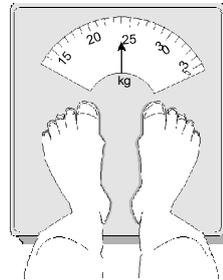
How much does this parcel weigh? Match the correct label to the parcel.



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

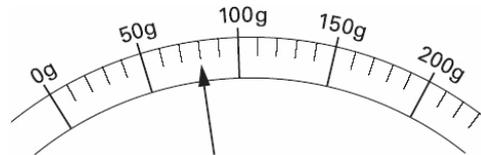
KS1 2000 level 2b

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

How many months are there in one year?

**KS1 2003 level 2c**

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.



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



**KS1 2004 level 3**

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]**

Mark got into the pool at 3.30 pm.

**3:30**

He was in the pool for 40 minutes.  
At what time did he get out?

•

**KS1 1996 level 3**

Two clocks show the same time. Tick (✓) them.



10:45

11:30



11:45

**Y3 optional test 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

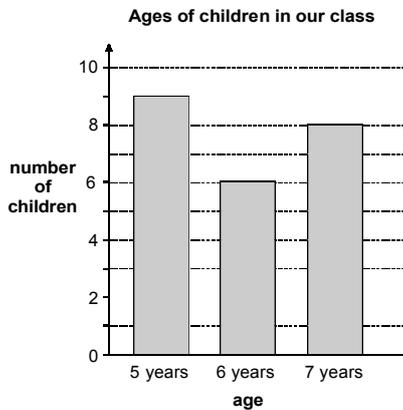
This table shows the ages of some children.

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 2a**

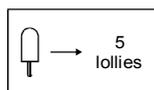
Class 2 made a graph.



How many children are 5 years old?  
What is the total number of children in the class?

**KS1 2003 level 2b**

A shop sold 10 ice lollies on Wednesday.

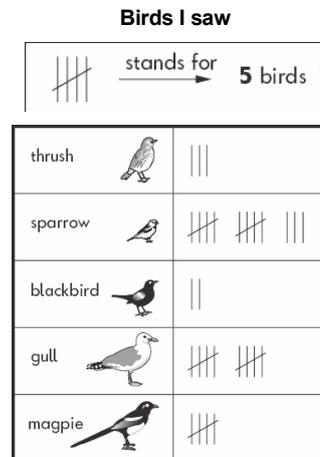


Number of lollies sold	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

How many lollies were sold on Monday?  
How many more lollies were sold on Tuesday than on Wednesday?

**Y3 optional test 2003 level 2**

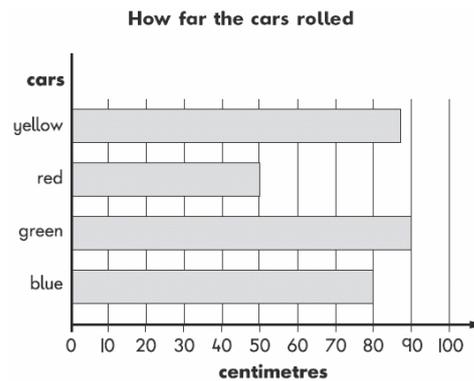
Jane made a tally chart.



How many more gulls than blackbirds did she see?

**KS1 2005 level 3**

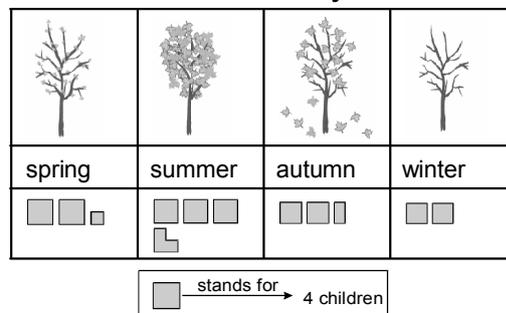
Some children rolled toy cars down a slope.



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**



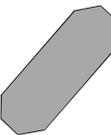
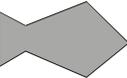
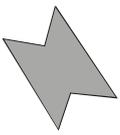
There is an even number of birthdays in 2 seasons. Which seasons are they?

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'

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

octagons	not octagons
	
	
	

**KS1 2004 level 2a**



**Sita**

I am 129cm tall.  
My eyes are brown.



**Harry**

I am 136cm tall.  
My eyes are green.

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**

Framework review

© *Qualifications and Curriculum Authority. Used with kind permission.*  
*If you wish to find your own QCA test questions and mark schemes linked to the PNS*  
*please go to [www.testbase.co.uk](http://www.testbase.co.uk).*