

# Key Stage 2 Mathematics SATs Practice Papers

Levels 3 - 5  
Set 2 - Answers

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# KS2 Practice Papers - Set 2 - Answers

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# KS2 Practice Papers - Answers

Set 2

Test Paper A

No Calculators Allowed

Time: 45 minutes

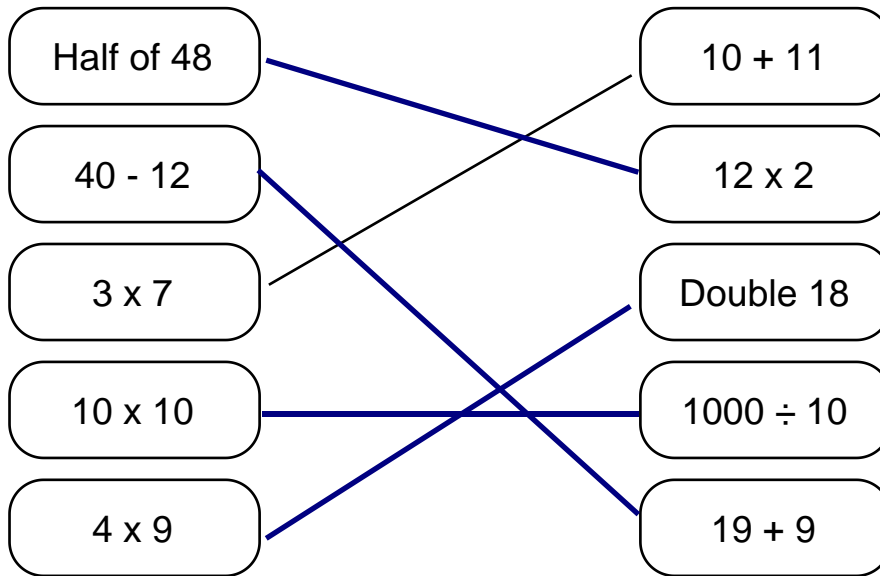
[www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

1

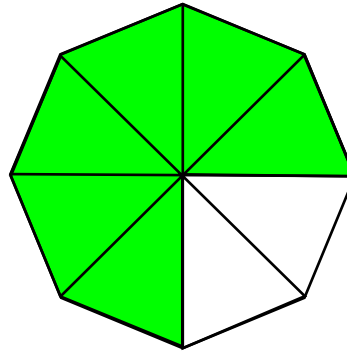
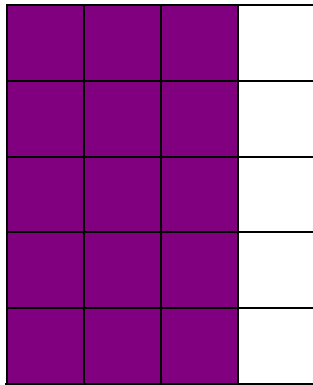
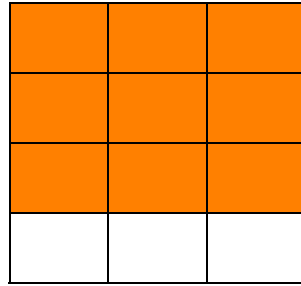
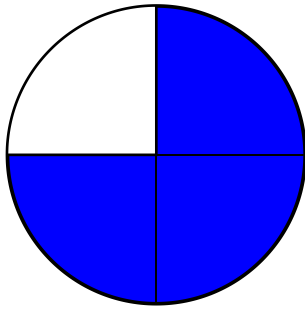
Draw lines to match the boxes that have the same value. One is already done.



2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)






**2** Shade three quarters of each shape.



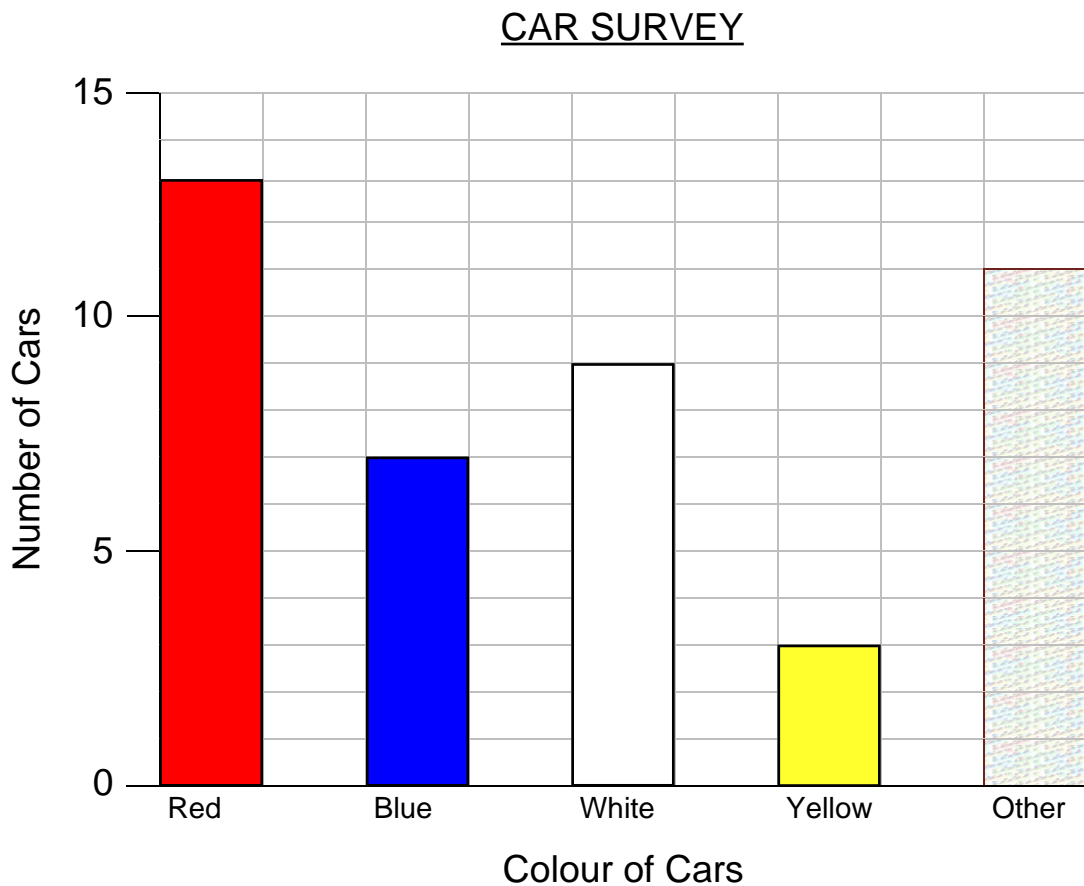
2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 3 Year 6 did a survey of the cars that passed the school gates between 10:00am and 11:00am. This tally chart shows how many cars they counted of each colour.

				
Red cars	Blue cars	White cars	Yellow cars	Other colours


Complete the bar chart below.



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

4

Write in the missing number to make both sides of the equation equal.

$$18 + \boxed{32} = 65 - 15$$


1 mark



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**5** A clock shows this time.



What time will it be in 1 hour and 30 minutes?

**Twenty to seven** or

**6:40**

1 mark

What time was it 15 minutes ago?

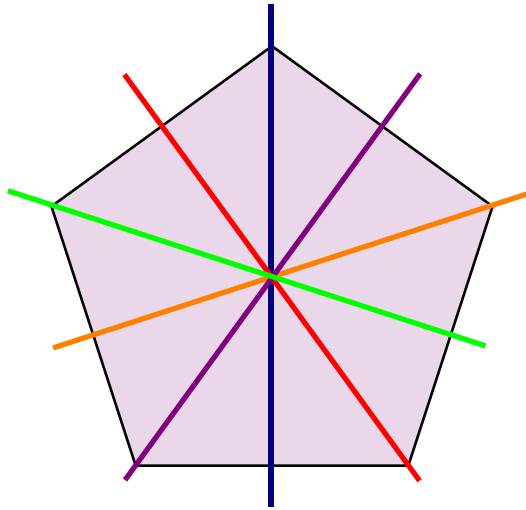
**Five minutes to five** or

**4:55**

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

6 Draw all the lines of symmetry on this shape.

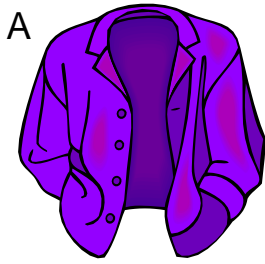


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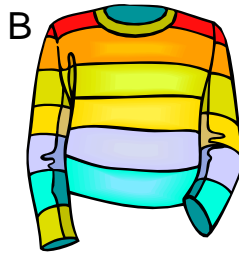
1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

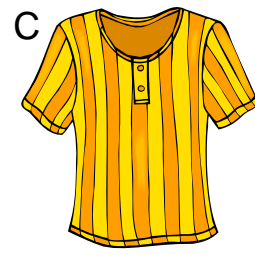
7 Anita goes shopping for a new shirt.



£10.99



£9.00



£5.50

How much more is shirt A than shirt C?

£ 5.49

1 mark

Shirt B is on special offer: 10% off the marked price. How much is shirt B in the sale?

£ 8.10

1 mark

How much is shirt C, to the nearest pound?

£ 6

1 mark

Anita decides to buy shirt A. How much change does she get from £20?

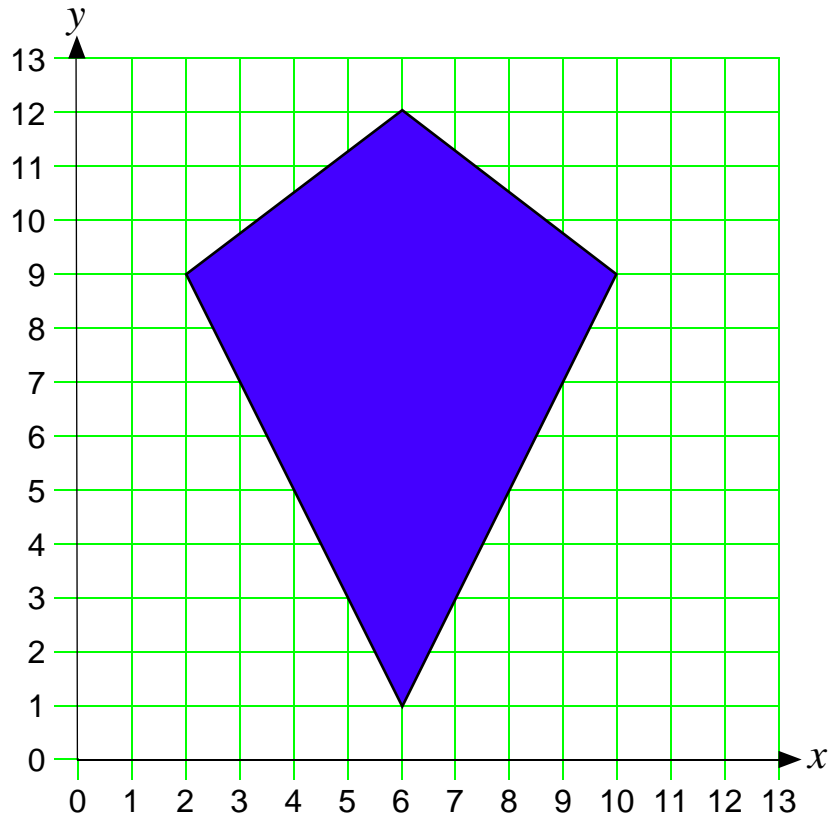
£ 9.01

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

8

Mark these coordinates on the graph and join them up, in order, with straight lines, to form a shape: (6,1) (10,9) (6,12) (2,9) (6,1)



1 mark

What is the name of the shape?

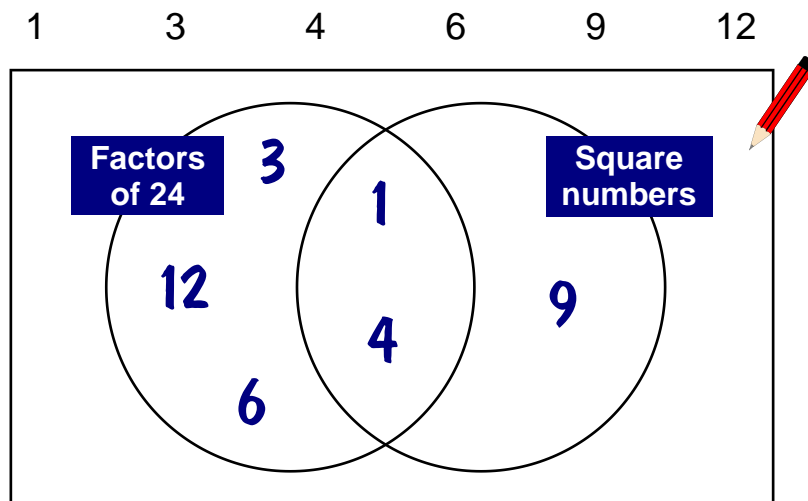
kite

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

9

Write these numbers in the correct places on this diagram.



2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 10** Jack rolls 2 dice (normal 6 sided dice) and adds together the two numbers he rolled.

Write down the probability of each of the following events using one of these words: impossible, unlikely, likely or certain.

His total score is 16.

**Impossible** 

His total score is less than 16.

**Certain**

He rolls 2 sixes.

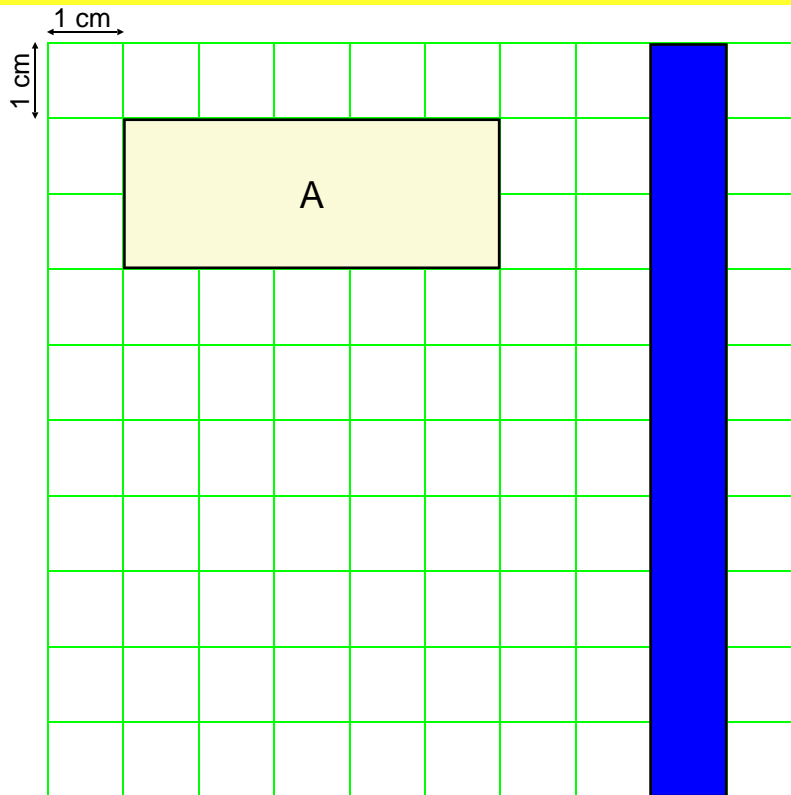
**Unlikely**

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 11** The area of rectangle A is  $10 \text{ cm}^2$  and its perimeter is  $14 \text{ cm}$ .

Draw a rectangle that has an area of  $10 \text{ cm}^2$  and a perimeter of  $22 \text{ cm}$ .

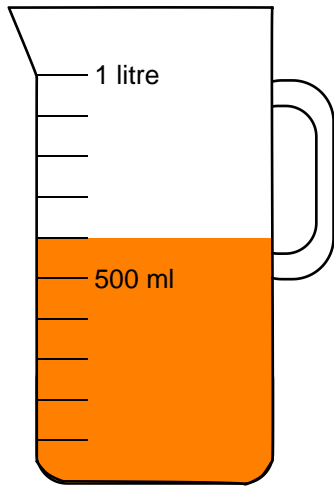


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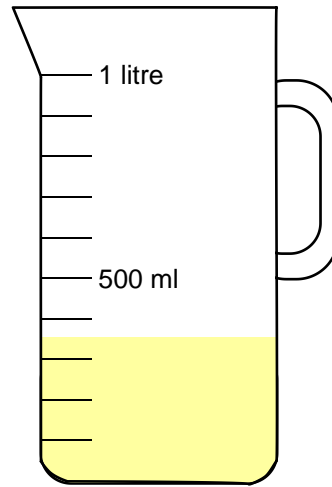
1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 12** Kevin is making fruit punch. He mixes the following amounts of orange juice and apple juice together.



Orange Juice



Apple Juice

How many millilitres of punch does he make altogether?

950 ml

1 mark

How many millilitres of grape juice should he add if he needs exactly 1 litre of punch?

50 ml

1 mark




See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

13

Calculate  $324 \div 6$

$$\begin{array}{r} 54 \\ 6 \overline{) 324} \end{array}$$



54
----

2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

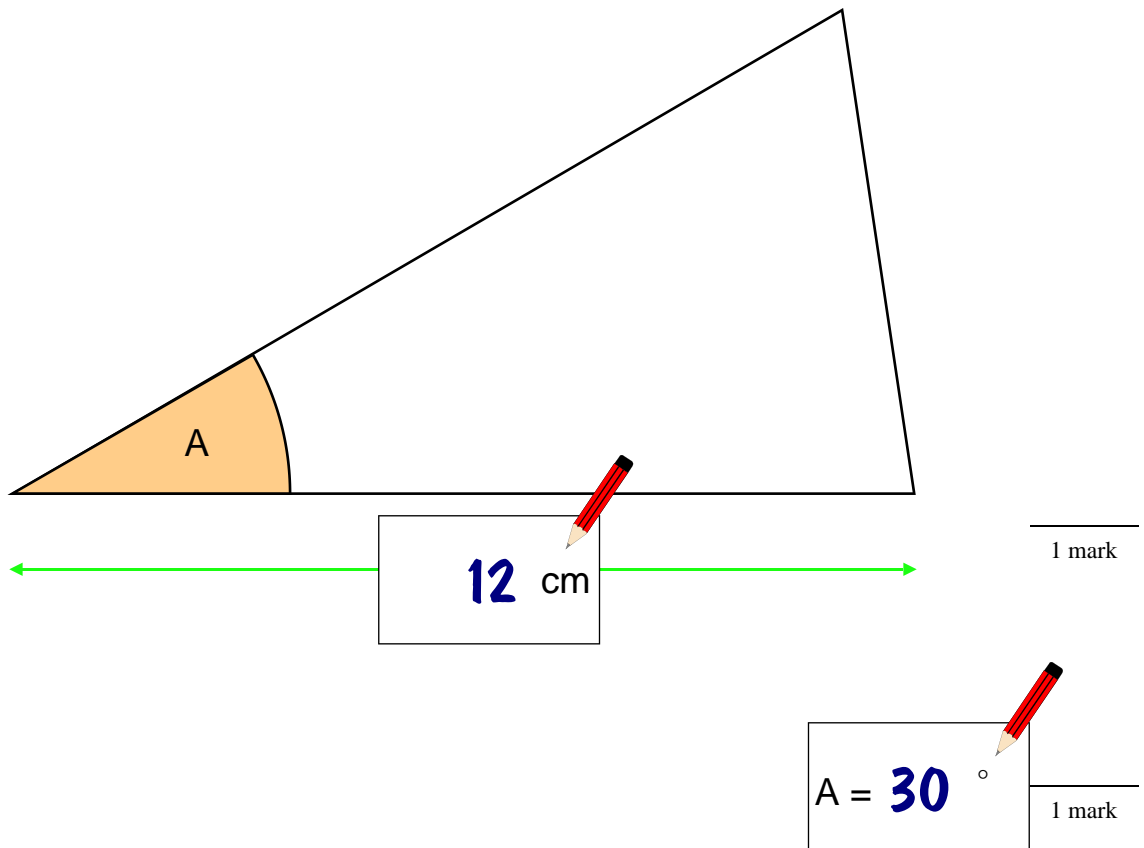
**14** Calculate  $249 \times 37$

**9213**

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**15** Use a ruler to accurately measure the length of the bottom of the triangle and a protractor to measure angle A.



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

16

Circle all the fractions that are equivalent to  $\frac{1}{3}$

$$\frac{2}{10}$$

$$\frac{3}{9}$$

$$\frac{15}{45}$$

$$\frac{3}{8}$$

$$\frac{5}{15}$$

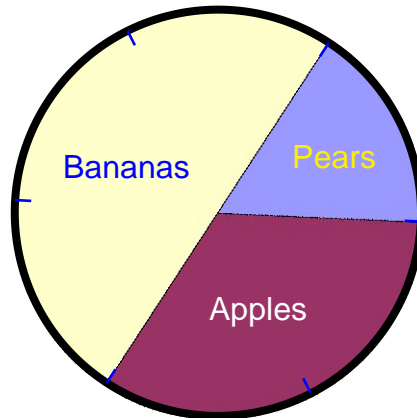
$$\frac{9}{12}$$

$$\frac{2}{6}$$

\_\_\_\_\_   
 2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 17 Mrs Brown's class made this pie chart to show the pupils' favourite fruits. Four children said they liked pears best.



What fraction of the children liked apples best?

$$\frac{2}{6}$$

or

$$\frac{1}{3}$$

1 mark

How many children are there in Mrs Brown's class?

24

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**18** Fill in the next two numbers in the sequence.

70 55 40 25 10

-5

-20

2 marks



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 19** A recipe for pastry uses 100 grams of butter for every 200 grams of flour.

Joe makes pastry with 250 grams of butter. How much flour will he use?

**500 g**

1 mark

Gemma makes pastry with 100 grams of flour. How much will the pastry weigh altogether (the butter and the flour)?

**150 g**

1 mark

Jane needs to make 600 grams of pastry. How much butter will she need?

**200 g**

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**20**

Write these numbers in order of size, from smallest to largest.

10.91

3.789

1.091

378.9

0.209

**0.209**

**1.091**

**3.789**

**10.91**

**378.9**



2 marks

smallest

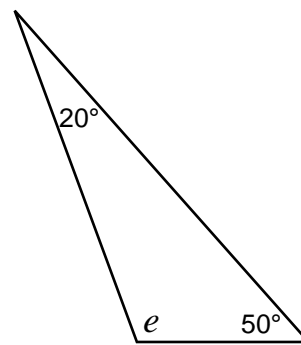
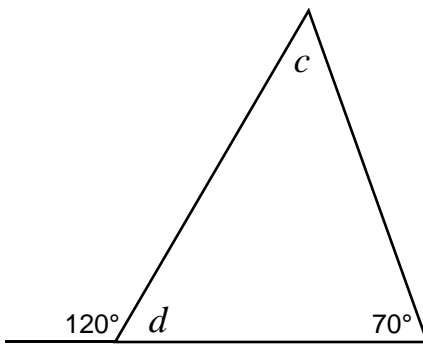
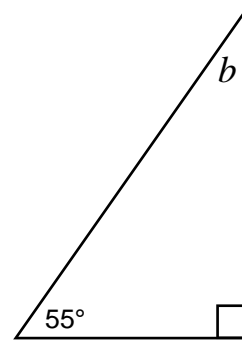
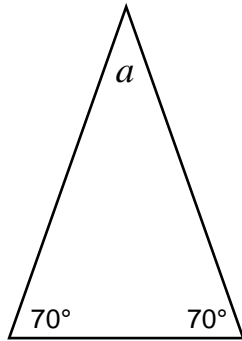
largest



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**21**

Calculate (not measure) the angles marked by letters. (Not drawn to scale.)

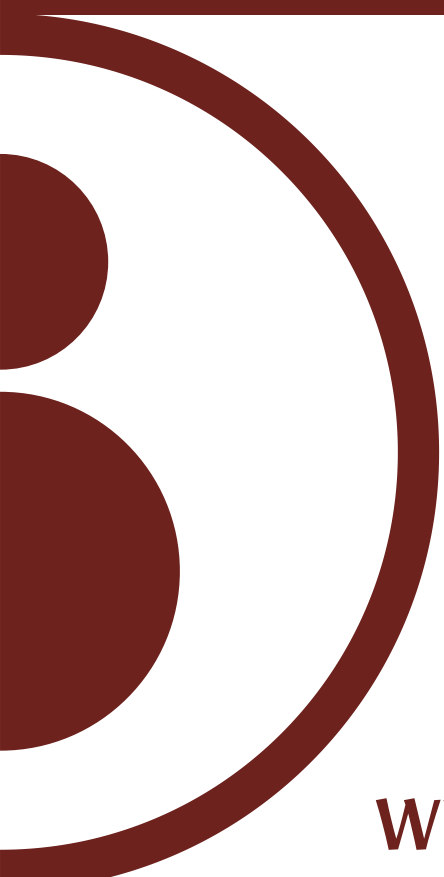


$a = 40^\circ$	$b = 35^\circ$	$c = 50^\circ$	$d = 60^\circ$	$e = 110^\circ$
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2 marks



# KS2 Practice Papers - Answers



Set 2  
Test Paper B  
Calculators Allowed  
Time: 45 minutes

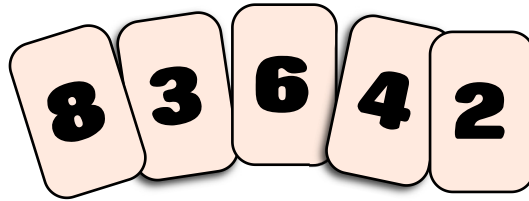
[www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

1

Use these number cards to make four different pairs of numbers that sum to 100. You may use each card as many times as you like.



$$\begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{|c|} \hline 8 \\ \hline \end{array} + \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 2 \\ \hline \end{array} = \mathbf{100}$$

$$\begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{|c|} \hline 6 \\ \hline \end{array} + \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 4 \\ \hline \end{array} = \mathbf{100}$$

$$\begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{|c|} \hline 2 \\ \hline \end{array} + \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 8 \\ \hline \end{array} = \mathbf{100}$$

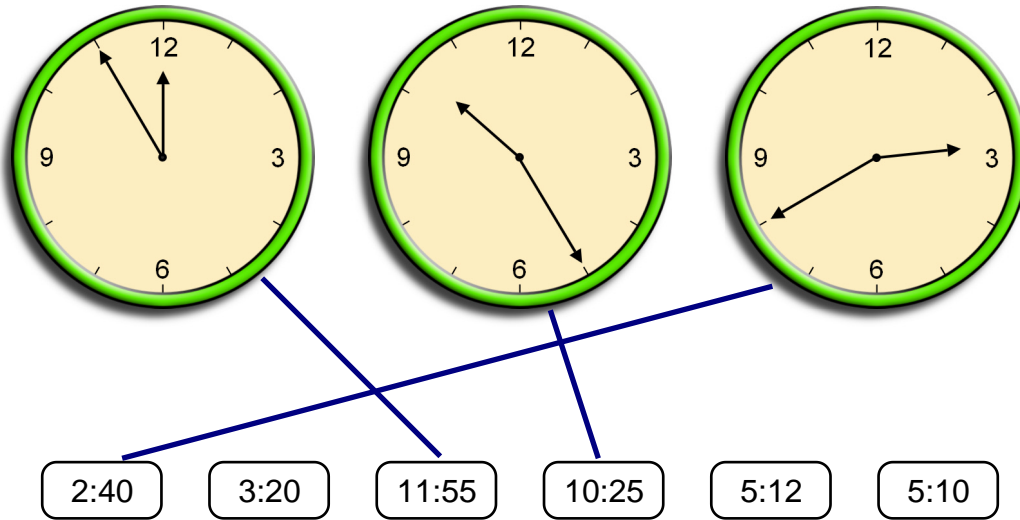
$$\begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{|c|} \hline 4 \\ \hline \end{array} + \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 6 \\ \hline \end{array} = \mathbf{100}$$

2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

2

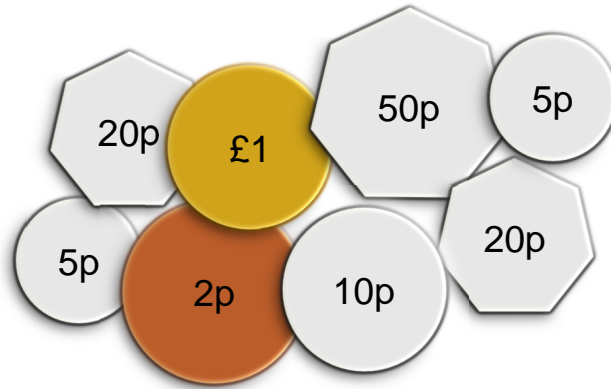
Draw a line from each clock to the correct digital time.



2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 3 Megan gets £5 pocket money. This is how much she has left.



How much has she spent?

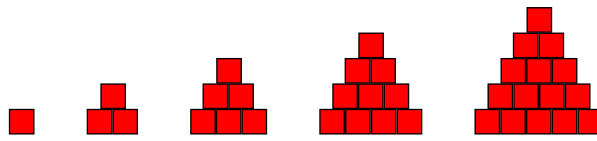
**5.00 - 2.12**

£ **2.88**

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 4 Liam made a pattern with red blocks.



How many blocks are there in the third pile?

6

How many blocks will there be in the sixth pile?

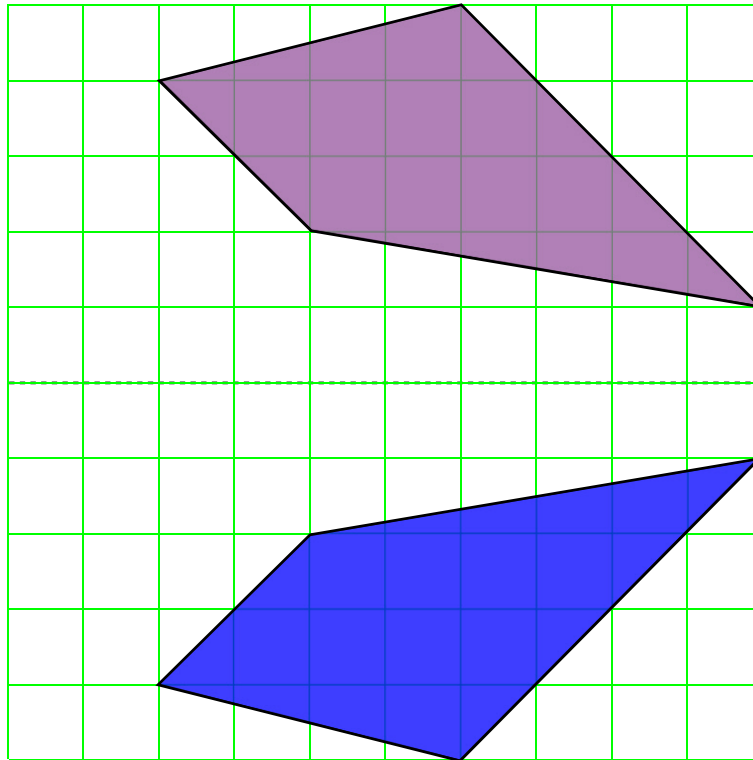
21

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

5

Draw the reflection of this shape in the mirror line.



1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 6 A group of families went to the zoo. There were 6 adults and 15 children.

Ticket Sales	
Adults	£5.00
Children	£2.50

How much did they have to pay altogether?

$$(6 \times 5) + (15 \times 2.5)$$

£ 67.50

1 mark

How much change do they get from £100?

$$100 - 67.5$$

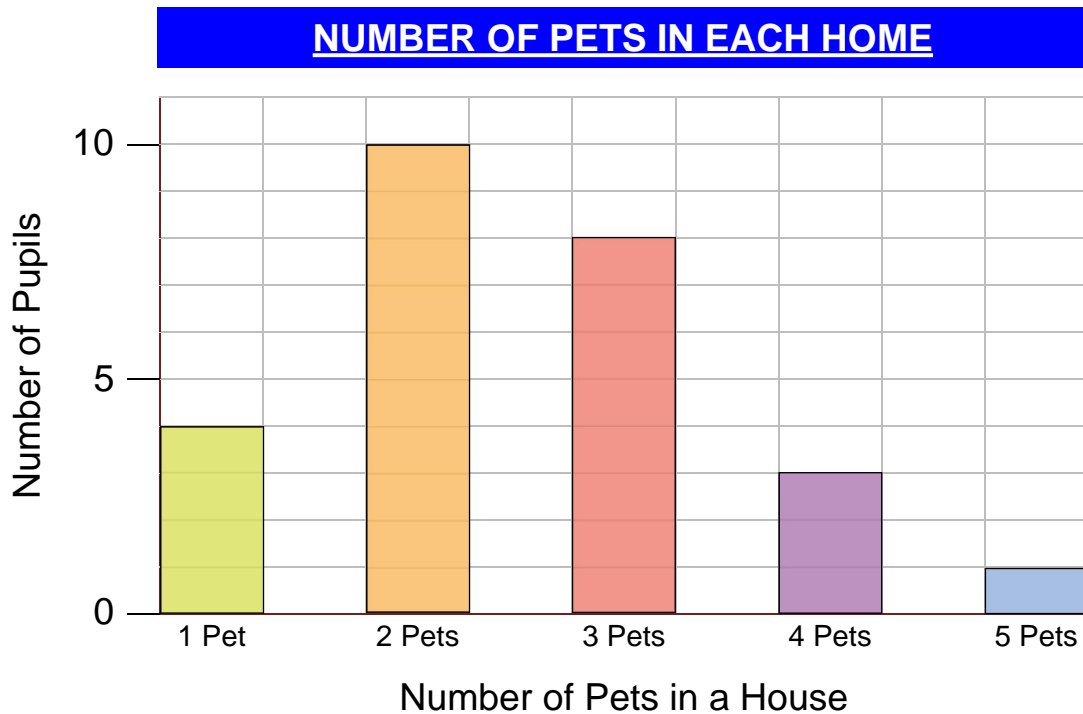
£ 32.50

1 mark



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 7 Mr Jones' class did a survey of the number of pets in each pupil's home. This bar chart shows their results.



How many pupils have 3 pets living in their home?

8

1 mark

How many more households have 2 pets living in them than have 5 pets living in them?

10 - 1

9

1 mark

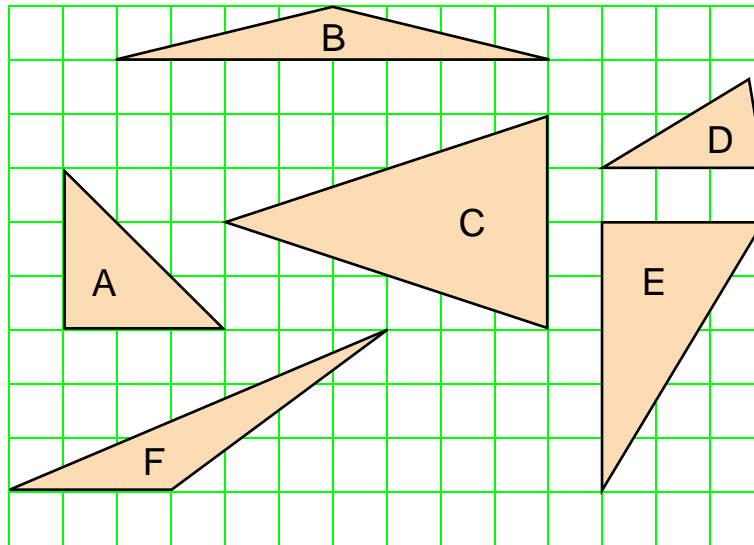
How many pupils are there in Mr Jones' class?

26

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

8 These 6 triangles are drawn on a square grid.



Where does each triangle fit in this table? Write its letter in the correct box. One has been done for you.

	Has a right angle	Has an obtuse angle	Has 3 acute angles
isosceles	A	<b>B</b>	<b>C</b>
scalene	<b>E</b>	<b>F</b>	<b>D</b>

2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

9

Circle all the numbers that are factors of 24.

1

2

3

4

5

6

7

8

9

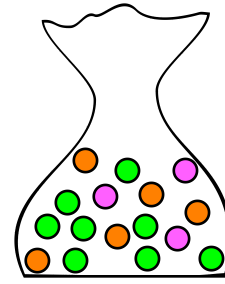
10

---

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 10 Jacob makes up small bags of smarties for his friends. He puts 5 orange smarties, 3 pink smarties and 8 green smarties into each bag.



If a friend takes one smartie out of a bag, without looking, which colour is he least likely to pick?

pink

1 mark

How many smarties are there in 15 bags?

$$15 \times 16$$

240

1 mark

There are 28 children in Jacob's class. If he gives each child two bags of smarties, how many green smarties will he need?

$$2 \times 8 = 16$$

$$28 \times 16 = 448$$

448


1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

11

Write one number in each box that fits with the table headings.

	Multiples of 321	Square Numbers
Less than 1000	<b>321</b>	<b>1</b>
More than 1000	<b>1284</b>	<b>10 000</b>

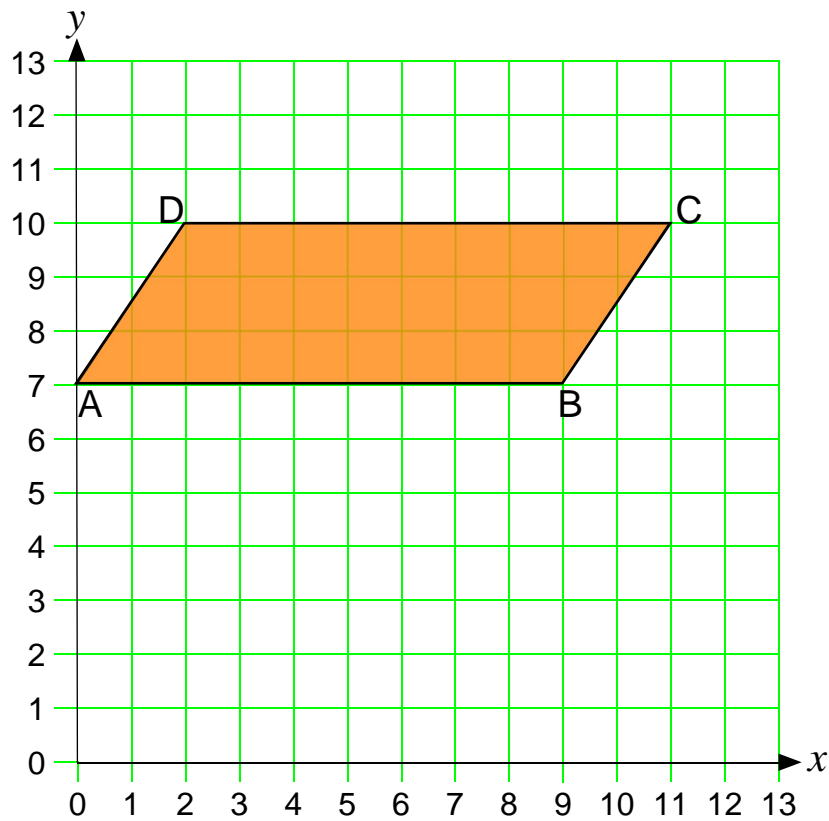


2 marks

There are lots of possible answers. These are 4 easy choices.

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**12** A shaded shape is drawn on this coordinate grid.



What is the name of the shaded shape?

**Parallelogram**

1 mark

What are the coordinates of the vertices of the shape?

A = ( **0,7** )

B = ( **9,7** )

C = ( **11,10** )

D = ( **2,10** )

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 13** The numbers in this sequence increase by the same amount each time.

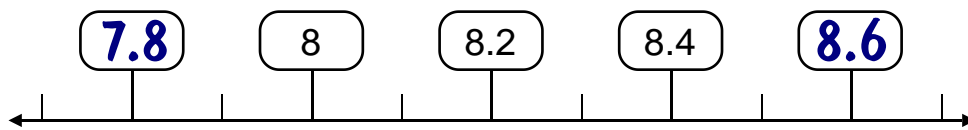
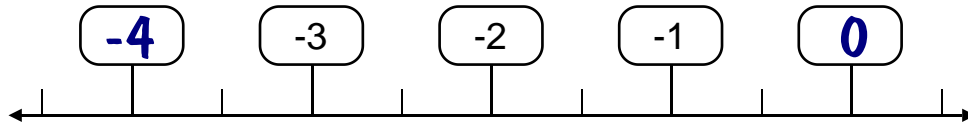
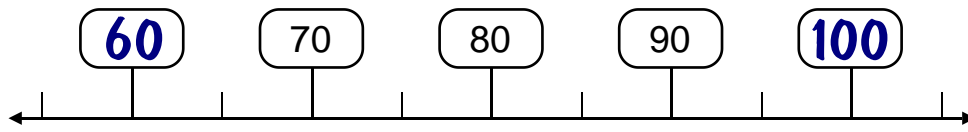
Fill in the missing numbers.

1	6	11	16
---	---	----	----

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**14** Write in the missing numbers on each of these number lines.






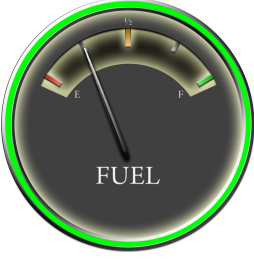
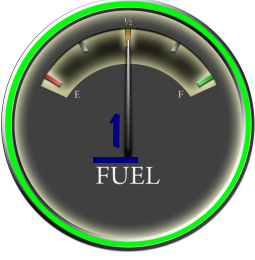
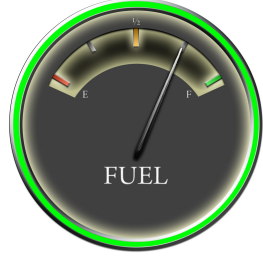
2 marks



See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

15

How much petrol is left in each of these cars? Write the amounts first as a fraction and then as a percentage.

		
		
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
25%	50%	75%

2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**16** 15 CDs cost £179.85. How much does one CD cost?

$$179.85 \div 15$$

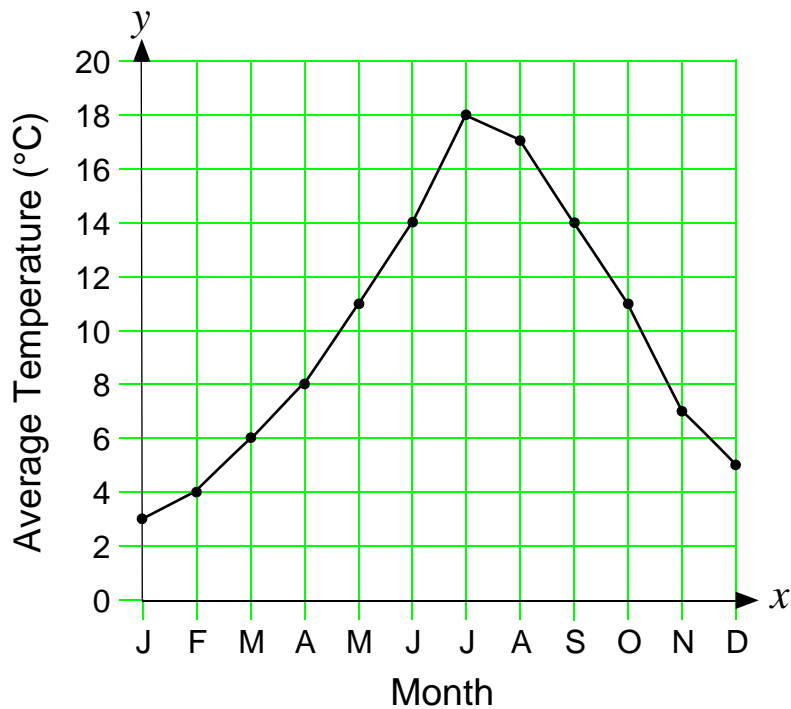
£ 11.99



1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

- 17 This line graph shows the average monthly temperature in one year in London.



Which month had the lowest average temperature?

January

1 mark

Which month had the highest average temperature?

July

1 mark

What was the average temperature in October?

11 °C

1 mark

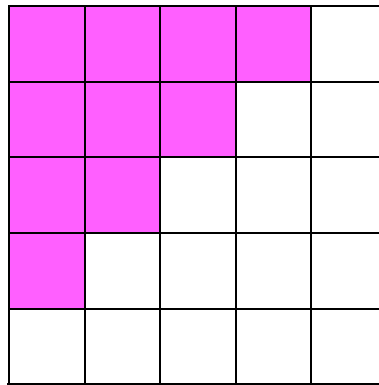
What was the difference between the highest and the lowest temperatures?

15 °C

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

18



What fraction of this shape is shaded pink?

$$\frac{10}{25}$$

or


$$\frac{2}{5}$$

1 mark

What percentage of this shape is shaded pink?


$$40\%$$

1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

19

Work out the answer to each of these calculations and write the answer down to the nearest whole number. The first one has been done for you.

	To the nearest whole number
$27.4 + 133.1$	161
$2000 \div 3$	<b>667</b>
$35.9 \div 8$	<b>4</b>
$931 - 27.9$	<b>903</b>
$6.6 \times (13.1 + 3.2)$	<b>108</b>

2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

20


Circle the remaining 6 prime numbers in this number grid.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

2 marks

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

**21** Write in the missing number.

$$9.61 \times \boxed{47} = 451.67$$



\_\_\_\_\_  
1 mark

See the video for this question at [www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)

22

Use this number line to help you complete the equation.

-4 -3 -2 -1 0 1 2 3 4

$$-3 + \boxed{5} = 2$$


1 mark





# KS2 Practice Papers & Answers

Set 2

Mental Maths Test  
No Calculators Allowed

[www.Online-Maths-Tutor.com](http://www.Online-Maths-Tutor.com)



# Taking the Test

- 1 You are allowed only a pen or pencil - no ruler, rubber, calculator, mathematical equipment or extra paper.
- 2 You are allowed to jot down quick notes if it helps you, but be careful not to write too much or it will take you too long and you might miss the next question.
- 3 If you need to change an answer, neatly cross through the incorrect answer and write down the correct answer.
- 4 Some of the questions are harder than others, so don't worry if you can't answer them all.
- 5 Ask an adult or a friend to read the questions to you.
- 6 Each question should be read twice, very clearly. Then the reader should time, using an accurate stopwatch, the correct number of seconds before reading the next question. For the first five questions you have 5 seconds to answer each question after it has been read. For the next ten questions you have 10 seconds to answer each question, and you have 15 seconds to answer each of the final five questions.



# Test Questions

*5 seconds each*

- 1 What must be added to thirteen to make twenty?
- 2 What is three quarters of twenty?
- 3 Subtract eight from eighty.
- 4 What is double twenty four?
- 5 What is half of five?

*10 seconds each*

- 6 What is forty two multiplied by one hundred?
- 7 How many twelves are there in sixty?
- 8 An ice-cream costs eighty pence. How much do 3 ice-creams cost?
- 9 What is five times nine, subtract ten?
- 10 Circle the fraction that is equal to twenty percent.
- 11 How many fours are there in two hundred and eighty?
- 12 What is twenty percent of ninety?
- 13 Emily starts school at nine am. She finishes six and a half hours later. What time does she finish school?
- 14 What is seven squared?
- 15 What is the remainder when seventeen is divided by three?

*15 seconds each*

- 16 Change one hundred and twelve millimetres into centimetres.
- 17 Which number is subtracted from seven hundred to give four hundred and fifty?
- 18 There are 36 red and yellow sweets in a bag. There are twice as many red sweets as yellow sweets. How many red sweets are in the bag?
- 19 One third of a number is twenty six. What is the number?
- 20 Calculate the perimeter of an equilateral triangle with sides of length eighteen centimetres.

# Mental Maths Test Paper

Answers



Notes

5 seconds each	1			
	2			
	3			
	4			
	5			
10 seconds each	6		42	
	7		60	
	8	£	80p	
	9			
	10	$\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{1}{6}$ $\frac{1}{10}$		20%
	11		280	
	12		90	
	13		pm	9 am
	14			
	15			17
15 seconds each	16		cm	112 mm
	17			450
	18			
	19			26
	20		cm	18 cm

## Set 2 Mental Maths Test Answers

<b>1</b>	7	<b>11</b>	70
<b>2</b>	15	<b>12</b>	18
<b>3</b>	72	<b>13</b>	3:30 pm
<b>4</b>	48	<b>14</b>	49
<b>5</b>	2.5 or 2	<b>15</b>	2
<b>6</b>	4200	<b>16</b>	11.2 cm
<b>7</b>	5	<b>17</b>	250
<b>8</b>	£2.40	<b>18</b>	24
<b>9</b>	35	<b>19</b>	78
<b>10</b>	$\frac{1}{5}$	<b>20</b>	54 cm



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