

# Year 7

## Mathematics

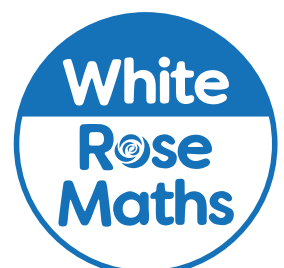
Core: Calculator allowed

Time allowed: 45 minutes

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
Teacher						

This assessment has been designed by White Rose Maths.

For more information, please visit [www.whiterosemaths.com](http://www.whiterosemaths.com)



1

Write the number seventeen thousand and forty-eight in figures.

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1 mark

Write the value of the 3 in the number 235 061

---

1 mark

Write the value of the 3 in the number 294.03

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1 mark

2

Use your calculator to work out  $3096 \times 0.43$

Write all the digits on your calculator display.

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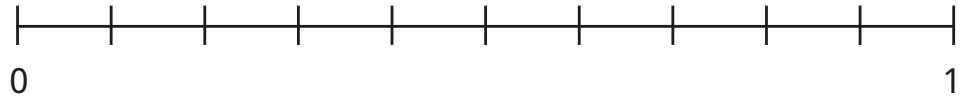
1 mark

Round your answer from part a) to the nearest hundred.

1 mark

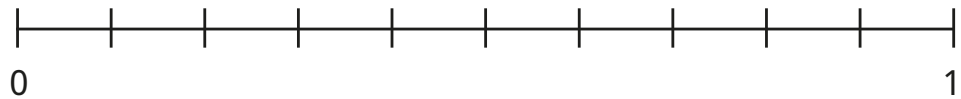
3

Draw an arrow to show the position of  $\frac{6}{10}$  on the number line.



1 mark

Draw an arrow to show the position of  $\frac{3}{5}$  on the number line.



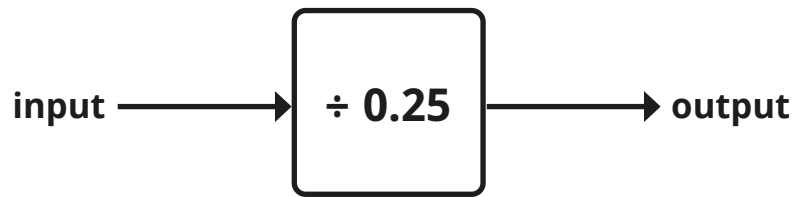
1 mark

Write  $\frac{3}{5}$  as a decimal.

1 mark

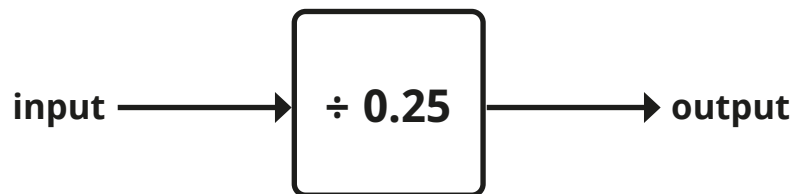
4

Work out the output of the function machine when the input is 59



1 mark

Work out the input of the function machine when the output is 127



1 mark

5

Write the next term in each sequence.

124, 130, 136,

1 mark

100, 94.4, 88.8,

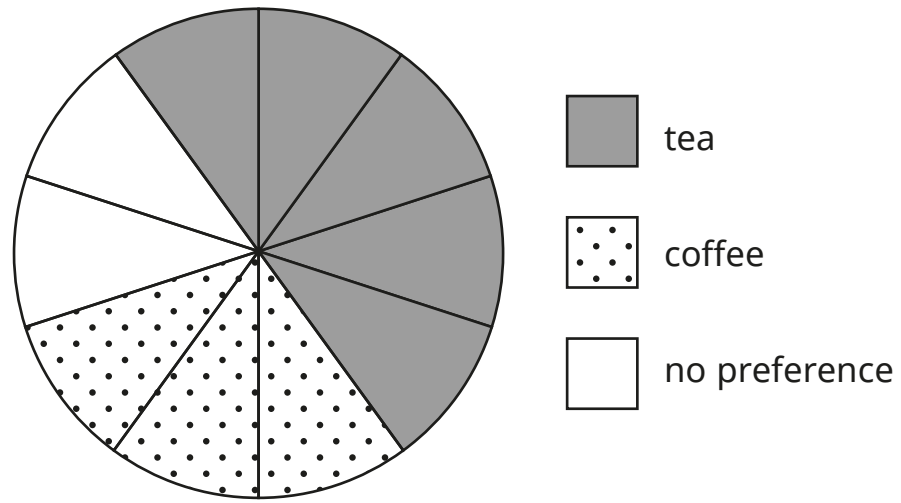
1 mark

500, 250, 125,

1 mark

6

A group of people were asked whether they preferred tea or coffee. Their results are shown in the pie chart.



What fraction of people had no preference?

1 mark

What percentage of people preferred coffee?

 %

1 mark

7

Here are the heights of some trees in centimetres.

Work out the range of the heights.

176.5    98.35    326.9    704.1    574.23

cm

2 marks

**8**

$m$	18.9
27.3	

Complete the facts shown by the bar model.

$$m + \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} + m = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} - m = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} - \boxed{\phantom{000}} = m$$

2 marks

Work out the value of  $m$ .

$$m = \boxed{\phantom{000}}$$

1 mark

9

Which of the sequences are non-linear?

Tick your answer(s).

10, 9.5, 8.9, 8.2 ...

40.5, 41, 41.5, 42 ...

98, 49, 24.5, 12.25 ...

1 mark

Explain how you know.

1 mark

10

Evaluate each expression when  $a = 9.5$

$7a$

1 mark

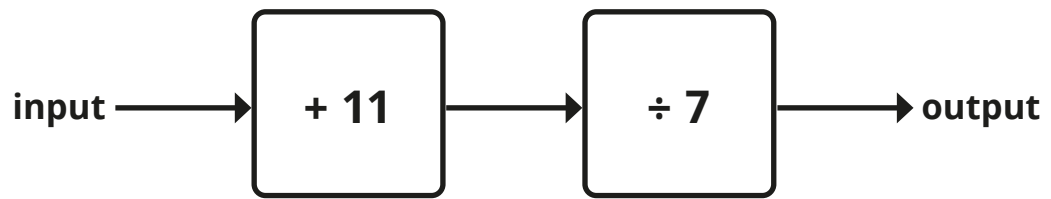
$25 - \frac{a}{2}$

2 marks



**11**

Here is a function machine.



Write an expression for the output of the function machine when the input is  $x$ .

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2 marks

**12**Evaluate  $\frac{3s - 13}{19}$  when  $s = 144$ 

Give your answer to 1 significant figure.

---

2 marks

**13**

Tom scored  $\frac{152}{200}$  in a test.

Esther scored 71% in the same test.

Who got the better mark in the test?

Circle your answer.

**Tom**

**Esther**

You must show your working.

**14**

Solve the equations.

$$57.3 + t = 85.9$$

$$t =$$

---

1 mark

$$\frac{k}{11} = 56$$

$$k =$$

---

1 mark

$$5q = 2\frac{1}{2}$$

$$q =$$

---

1 mark

15

$$15.7x + 4.3y \equiv 20xy$$

Is the statement true or false?

Circle your answer.

**True**

**False**

Explain your reasoning.

16

In a group, people wear glasses, contact lenses or neither.  
None of the group wear both glasses and contact lenses.  
 $\frac{3}{8}$  of the group wear glasses.  
12% of the group wear contact lenses.

What proportion of the group don't wear glasses or contact lenses?

3 marks

17

Find the term-to-term rule for the sequence.

$1\frac{3}{10}$

$1\frac{3}{5}$

$1\frac{9}{10}$

$2\frac{1}{5}$

...

2 marks

END OF TEST

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