

Spring Assessment

Year 8

Mathematics

Foundation: No calculator allowed

Time allowed: 45 minutes

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

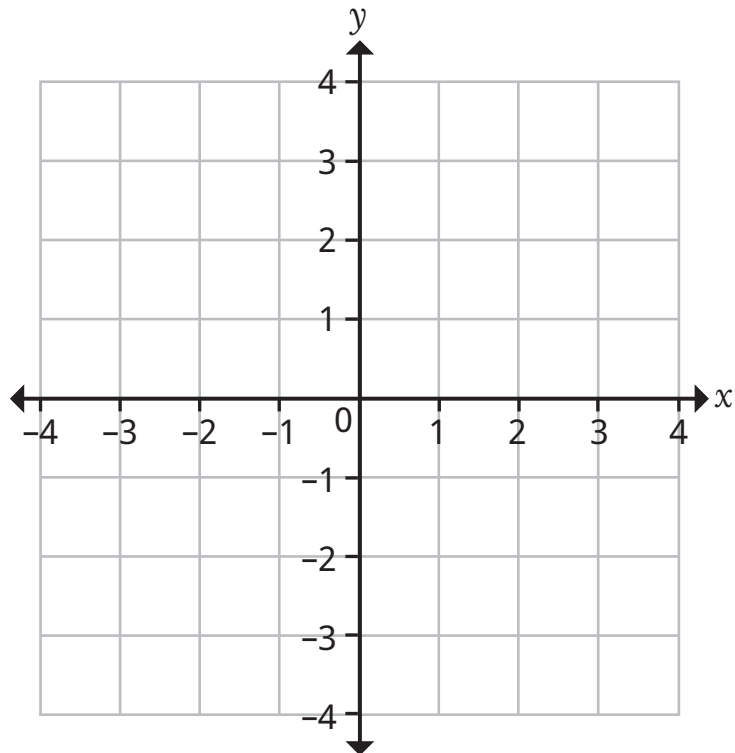
This assessment has been designed by White Rose Maths.

For more information, please visit www.whiterosemaths.com



1

Plot the points $(3, 2)$ and $(-4, 2)$ on the grid.



2 marks

Join your points with a ruler.

Write the coordinates of another point that would be on your line.

(,)

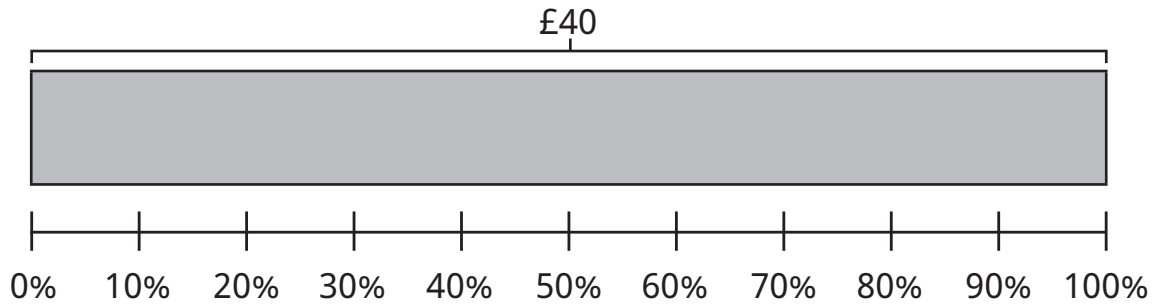
1 mark

On the same grid draw the line $x = 3$

1 mark

2

The diagram shows that 100% is equal to £40



What is 50% of £40?

£

1 mark

What is 10% of £40?

£

1 mark

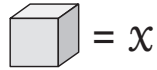
What is 20% of £40?

£

1 mark

3

Jack is using cubes and counters to make expressions.

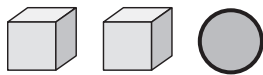


I have made $2x + 3$

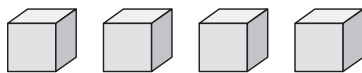


Jack makes some more expressions using cubes and counters.

Write down the expressions he has made.



1 mark



1 mark

4Tick the calculations that are equal to 4×5

5×4

$5 + 5 + 5 + 5$

$4 \div 5$

$(2 \times 5) + (2 \times 5)$

10^2

2 marks**5**

Fill in the missing numbers.

$$\frac{11}{25} = \frac{\boxed{}}{100} = \boxed{}\%$$

1 markWrite $\frac{7}{50}$ as a percentage.

1 mark

6

Expand the brackets in the expressions.

$$4(m + 3)$$

1 mark

$$y(y - 7)$$

1 mark

Circle the highest common factor of 12 and 16

1 2 4 6

1 mark

Fully factorise the expression.

$$12x + 16$$

1 mark

7

Share £45 in the ratio 2 : 3

£		and	£	
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2 marks

8

Simplify the expressions.

$$a \times a \times a$$

1 mark

$$b^4 \times b^7$$

1 mark

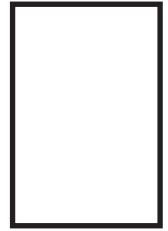
Simplify the expression by collecting like terms.

$$4x^2 + 5x + 6x^2$$

1 mark

9

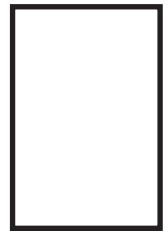
Work out $\frac{2}{5} \times \frac{1}{3}$



1 mark

Work out $\frac{4}{7} \div \frac{2}{3}$

Give your answer in its simplest form.



2 marks

10

The probability that Dora wins a game of chess is 0.7

Work out the probability that Dora does not win a game of chess.

1 mark

11

The table shows the number of coloured beads Annie has.

Colour	red	blue	yellow	green
Number of beads	51	49	25	25

Annie wants to make a necklace using 60 blue and green beads. She wants 50% of the beads to be blue and the rest to be green.

Can Annie make the necklace?

Circle your answer.

Yes

No

Explain your reasoning.

2 marks

12

Solve the inequality.

$$x + 3 > 10$$

2 marks

Solve the equation.

$$3 = 5x + 8$$

$x =$

2 marks**13**

A phone shop is increasing all of its prices by 15%.

What is the new price of a phone that cost £120?

£

3 marks

14

Here is a rectangle.

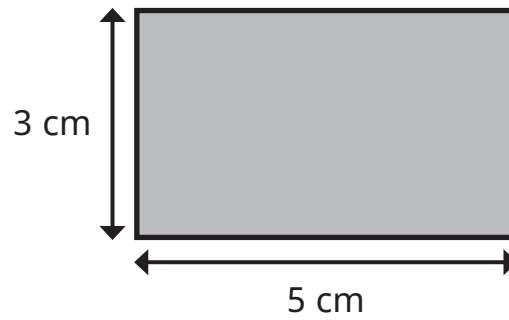


diagram not drawn accurately

It is enlarged by scale factor 2



What is the perimeter of the enlarged rectangle?

cm

2 marks

15

Which of these numbers is written in standard form?

Circle your answer.

54×10^5

0.3×10^2

4×10^7

1 mark

Write 70 000 in standard form.

1 mark

Write 3×10^6 as an ordinary number.

1 mark

END OF TEST