

Summer Assessment

Year 8

Mathematics

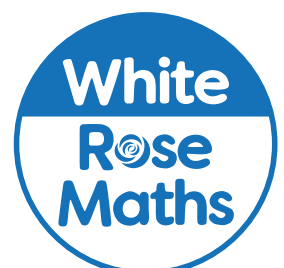
Foundation: No calculator allowed

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.

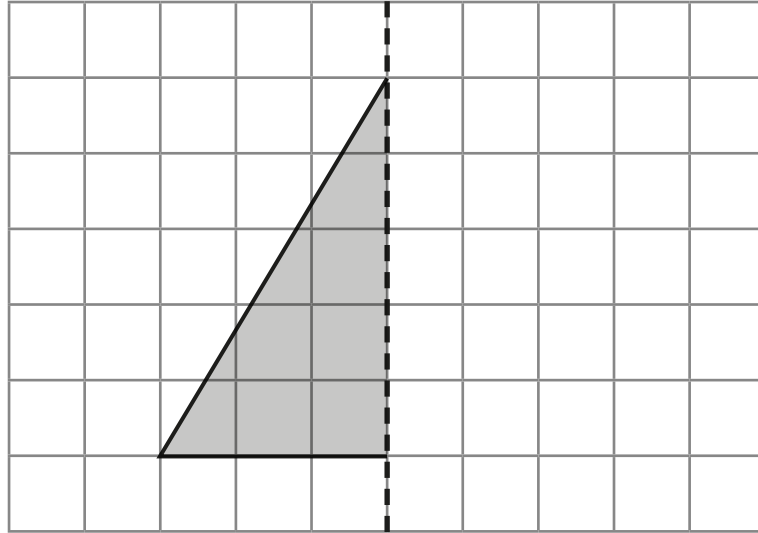
For more information, please visit www.whiterosemaths.com



1

The diagram shows part of a shape and its line of symmetry.

Complete the shape.



1 mark

2

In a shop, for every 2 apples there are 3 bananas.



There are 10 apples in the shop.

How many bananas are there in the shop?

2 marks

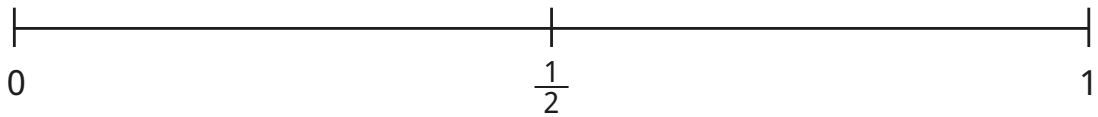
3

There are 8 pens in a box.

- 3 pens are blue.
- 4 pens are black.
- 1 pen is red.

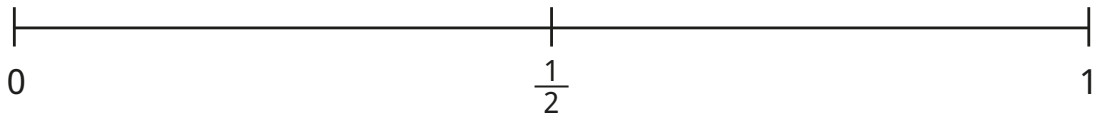
Dexter takes a pen from the box at random.

On the probability scale, mark with a cross (×) the probability that Dexter takes a black pen.



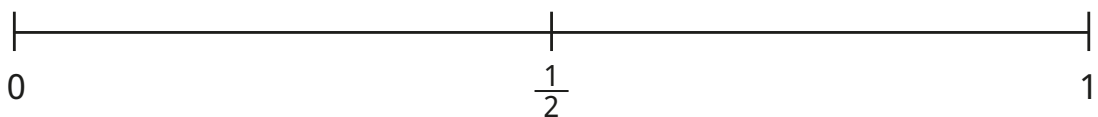
1 mark

On the probability scale, mark with a cross (×) the probability that Dexter takes a green pen.



1 mark

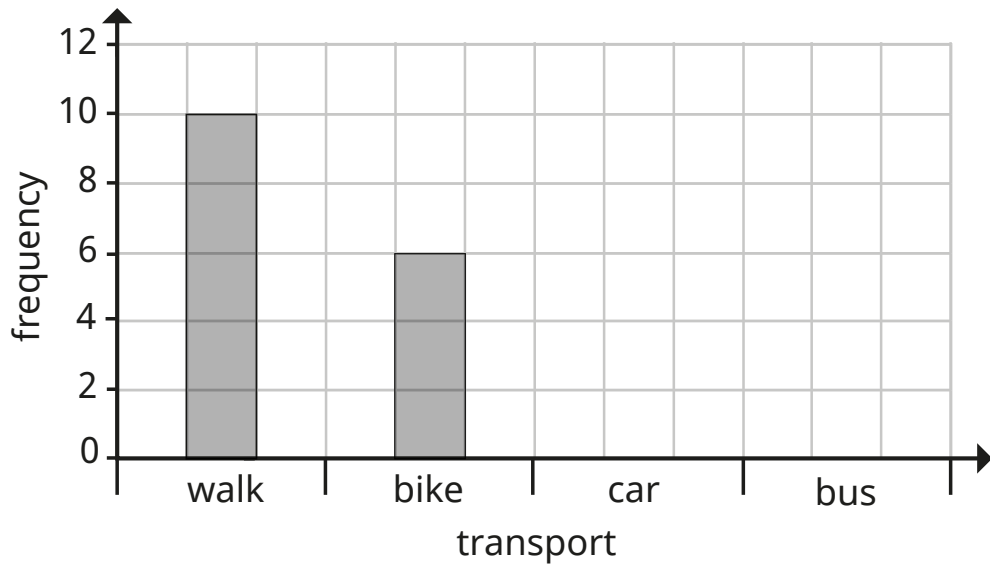
On the probability scale, mark with a cross (×) the probability that Dexter takes a blue, black or red pen.



1 mark

4

Aisha asked students in her class how they travel to school. The bar chart shows some of her results.



4 students travel by car.

11 students travel by bus.

Complete Aisha's bar chart.

2 marks

How many more students walk than travel by car?

1 mark

Which method of travel is the mode?

1 mark

Two students were absent on the day that Aisha asked the class.

How many students are in Aisha's class?

2 marks

5

Work out the values of the expressions.

6^2

1 mark

2^3

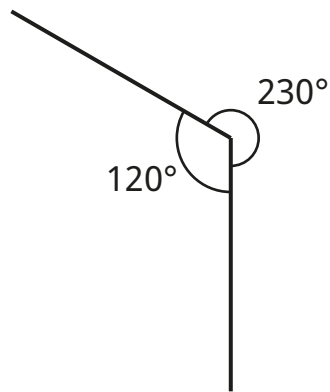
1 mark

$\sqrt{81} + \sqrt{25}$

2 marks

6

Filip has measured and labelled the angles in this diagram.



Explain why Filip must be wrong.

1 mark

7

Jack and Annie share £150 in the ratio 4 : 1

How much money do they each get?

| | |
|-------|------------------------|
| Jack | £ <input type="text"/> |
| Annie | £ <input type="text"/> |

2 marks

8

Expand and simplify the expression.

$$6(a + 5) - 2(a - 3)$$

2 marks**9**

Solve the equations.

$$10a = 360$$

a =

1 mark

$$b + \frac{3}{5} = 1$$

b =

1 mark

10

Here are the test marks of 6 boys and 4 girls.

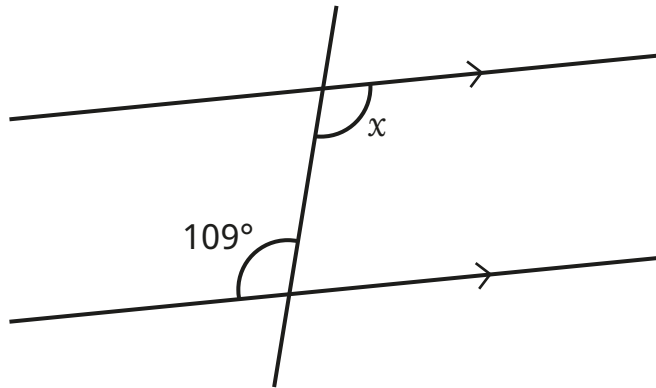
| | | | | | | |
|-------|---|---|----|---|---|---|
| Boys | 5 | 3 | 10 | 2 | 7 | 3 |
| Girls | 2 | 5 | 9 | 8 | | |

Show that the girls have a higher mean test mark than the boys.

3 marks

11

The table shows a pair of parallel lines.



Write the size of the angle marked x .

1 mark

Give a reason for your answer.

1 mark

12

Complete the table.

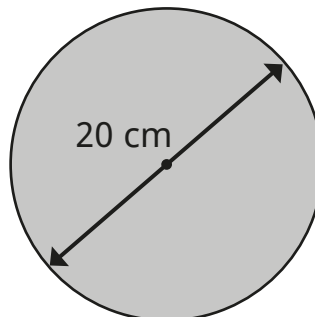
| Fraction | Decimal | Percentage |
|-----------------|---------|------------|
| $\frac{4}{10}$ | 0.4 | |
| | 0.51 | 51% |
| $\frac{3}{100}$ | | |

3 marks

13

Work out the area of the circle.

State the units with your answer.



3 marks

14Use $<$, $>$ or $=$ to make the statement correct.

Show working to support your choice.

$$\frac{1}{3} + \frac{1}{4} \bigcirc \frac{1}{3} \times \frac{1}{4}$$

15

Simplify the expressions.

2 marks

$$y^3 \times y^5$$

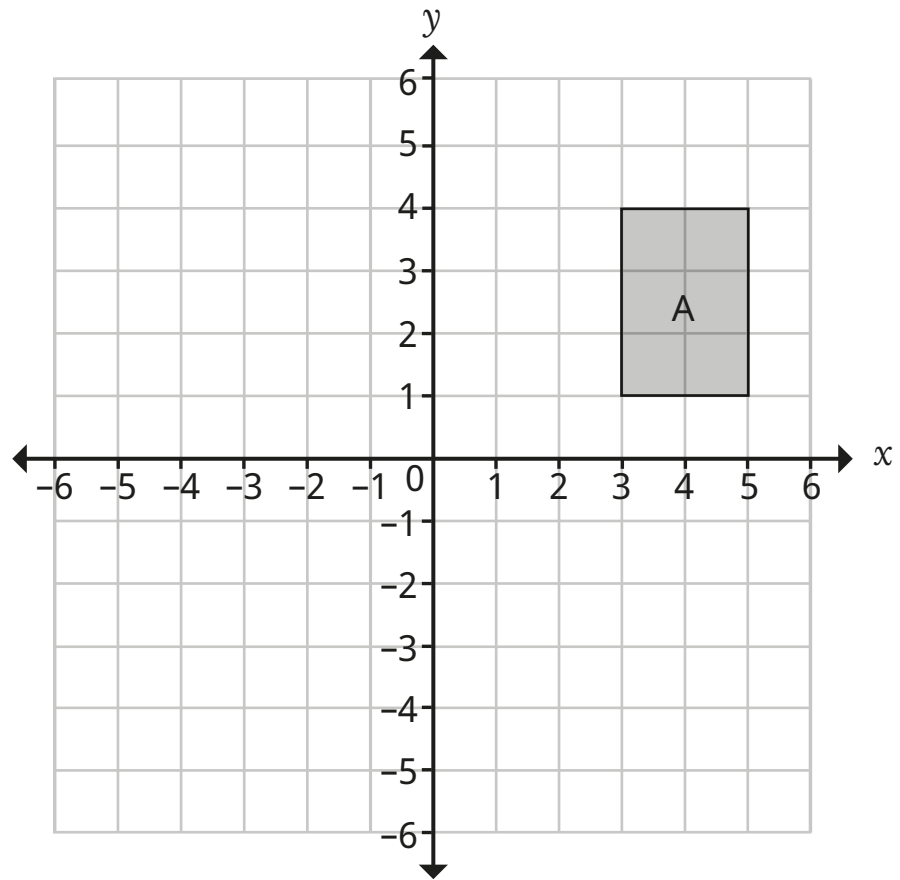
1 mark

$$w^{12} \div w^5$$

1 mark

16

Reflect rectangle A in the line $x = 1$



2 marks

END OF TEST