Summer Assessment

Year 7

Mathematics

Core: Calculator allowed

Time allowed: 45 minutes

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

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White Rose Maths

1 Complete the statements using **<**, **>** or **=**

1.5 million ◯ **160,000**

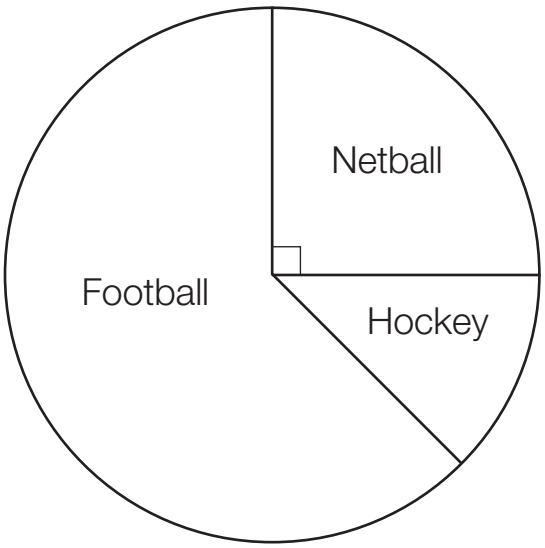
-12 ◯ **-2**

4 hundredths ◯ $\frac{4}{10}$

2 marks

2 60 people were asked what their favourite sport is.

The pie chart shows the results.



How many people like **netball**?

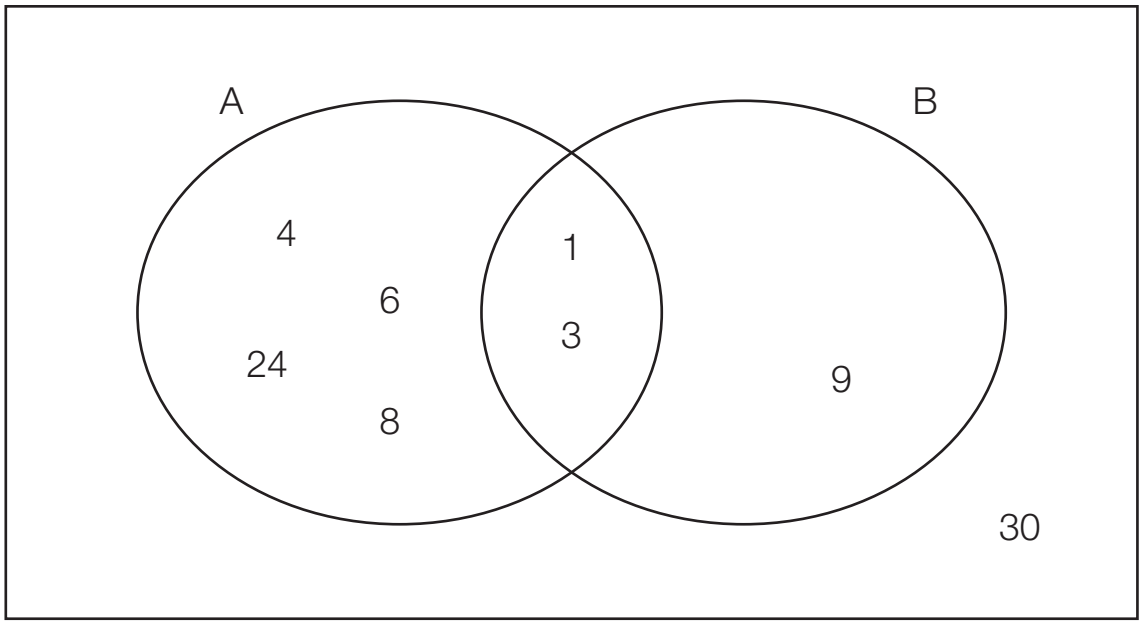
1 mark

40 people said their favourite sport is football.

How many people like **hockey**?

1 mark

3 Here is a Venn diagram.



The numbers in set A are all factors of ☐

The numbers in set B are all factors of ☐

2 marks

Write down the numbers that are in A ∩ B.

1 mark

4 Sophie measures and labels the angles in this triangle.

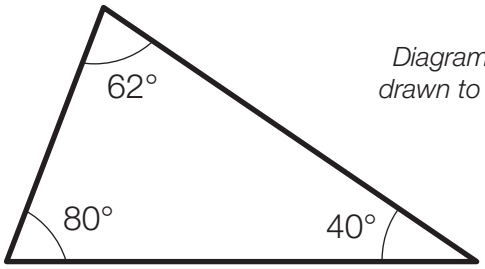
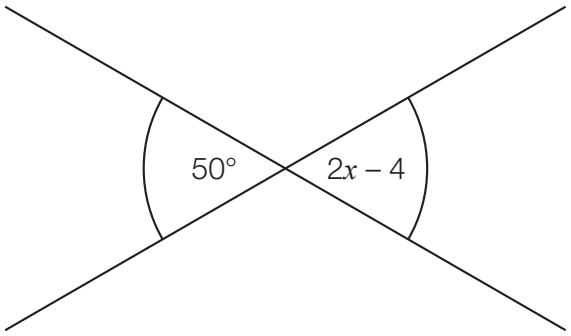


Diagram not drawn to scale

Explain why she must have measured incorrectly.

1 mark

Find the value of x.



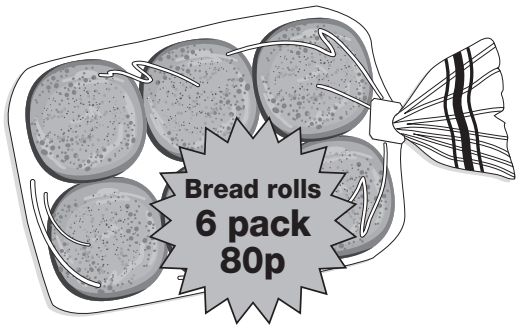
$x =$

2 marks

5 Sara is having a barbecue.

She is going to be cooking burgers.

Sara needs one bread roll for every burger she cooks.



Sara wants to buy exactly the same number of bread rolls and burgers.

What is the smallest number of packs of each Sara needs to buy?

Packs of bread rolls ☐

Packs of burgers ☐

2 marks

How much money does Sara spend?

£ ☐

1 mark

6 Find the mean of the numbers written on the cards.

-3	-3	2	0

2 marks

7

$$2x + y = 12$$

Work out the values of these expressions.

$6x + 3y =$

$2x + y - 5 =$

2 marks

8 Here are some cards with angles written on them.

45°	165°	5°	90°	102°	31°	53°

Moira picks one of the cards at random.

What is the probability that the angle on the card is greater than 100°?

1 mark

Tick the cards that show acute angles.

45°	165°	5°	90°	102°	31°	53°

1 mark

Tick the cards that show prime numbers.

45°	165°	5°	90°	102°	31°	53°

1 mark

9

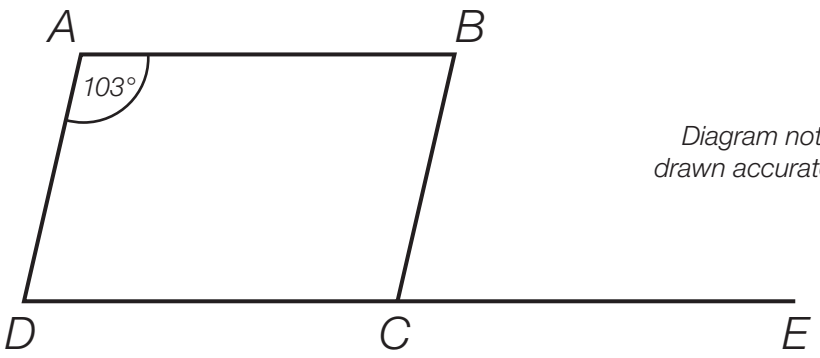


Diagram not drawn accurately

ABCD is a parallelogram.

DCE is a straight line.

Work out the size of angle BCE.

2 marks

10

Simplify $6x - x$

Circle the correct answer.

6 $6x^2$ $5x$ $7x$

1 mark

11 Here is some information about 45 shapes.

- There are 18 triangles.
- 30 of the shapes are blue.
- 12 of the quadrilaterals are orange.
- There is an equal amount of blue triangles and blue quadrilaterals.

How many of the triangles are orange?

You may use the table below to help you.

	Triangles	Quadrilaterals	Total
Blue			
Orange			
Total			45

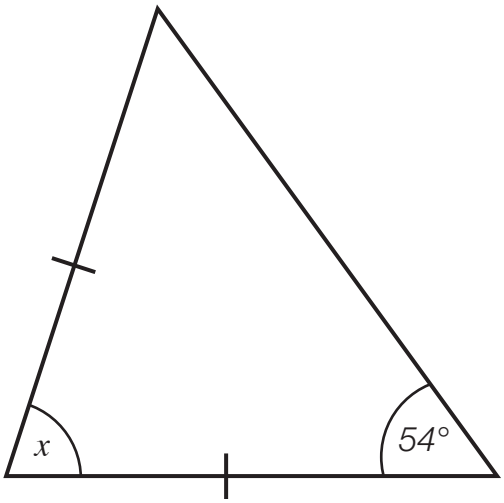
2 marks

Robbie picks one of the shapes at random.

What is the probability the shape is a triangle?

1 mark

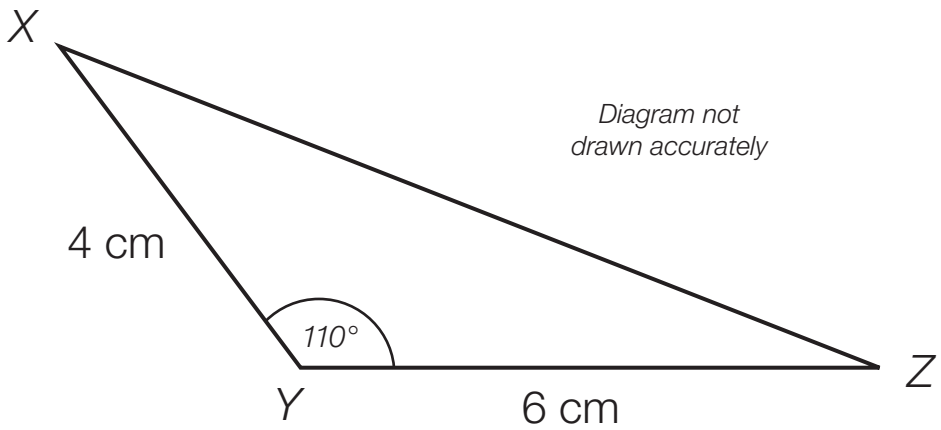
12



Work out the size of the angle labelled x.

2 marks

13



XYZ is a triangle.

YZ = 6 cm.

XY = 4 cm.

Angle Y = 110°.

Make an accurate drawing of triangle XYZ.

3 marks

14 $x = \frac{4}{5}, y = \frac{2}{3}$

Which is the larger fraction, x or y?

Explain how you know.

1 mark

Work out the value of $x + y$, giving your answer as a mixed number.

3 marks

15 Put these numbers in order, starting with the smallest.

$\frac{1}{4}$ 0.4 1.4% $\frac{14}{100}$ 0.025

2 marks

Write 0.075 correct to one significant figure.

1 mark

Use the factors of the numbers to explain why

$$45 \times 56 = 5 \times 7 \times 8 \times 9$$

1 mark

Use this result to show that

$$45 \times 56 = 63 \times 40$$

1 mark

END OF TEST

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