

Summer Assessment

Year 7

Mathematics

Higher: No calculator allowed

Time allowed: 45 minutes

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

These assessments have been designed by White Rose Maths.
For more information, please visit www.whiterosemaths.com



1

Maria is asked to write down a prime number between 10 and 20

She writes down 17

Is she correct?

Explain your answer.

1 mark

Write down a prime number between 80 and 90

1 mark

2

Here is a rule for dividing a number by 14

First divide the number by 2
Then divide your answer by 7

Use this rule to work out the answer to $364 \div 14$

2 marks

3

The number cards have been placed in ascending order.

0.37

$\frac{6}{15}$

75%



$\frac{39}{50}$

One of the cards has been replaced with a symbol.

What could the value of the ★ be?

Write your answer as a decimal.

1 mark

4

Use the information that

$$26 \times 327 = 8,502$$

to work out

$$26 \times 32.7$$

$$850.2 \div 2.6$$

2 marks

5

Two-thirds of a number is 11

Work out half the number.

2 marks

Work out the value of the expression.

$$(-3)^2 + 3^2$$

1 mark

Work out

$$\frac{2}{3} - \frac{5}{8}$$

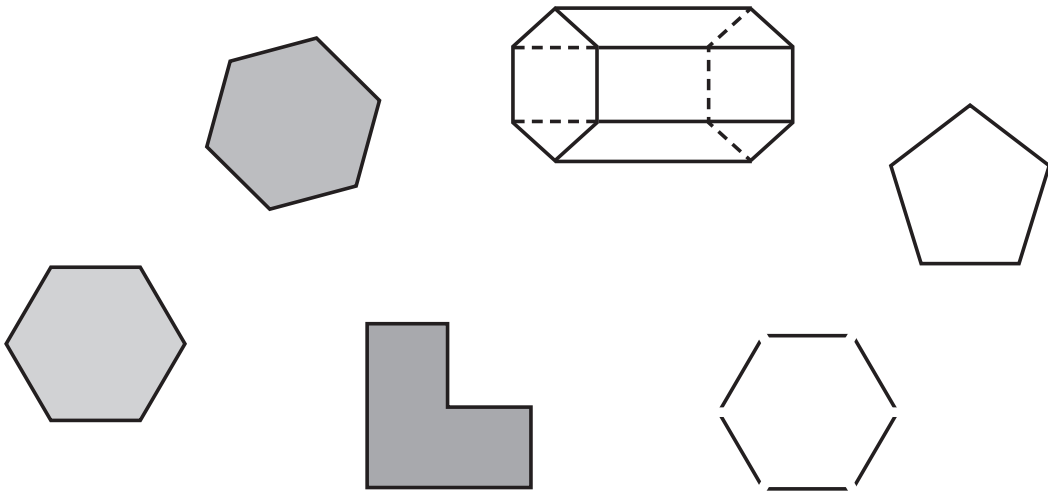
2 marks

Work out 7.9^2

2 marks

6

Circle all the hexagons.



1 mark

Work out the sum of the interior angles in an **octagon**.

2 marks

7

Here is the line AB .



Use a protractor to draw an angle of 292° at point B.

1 mark

Use a ruler and compasses to construct an equilateral triangle with sides of length 7 cm.

You must show all your construction lines.

2 marks

8

Solve the equation.

$$\frac{x + 3}{5} = -1$$

2 marks

$$y = 6\frac{1}{4} \text{ and } z = 2\frac{2}{5}$$

Work out the value of $y - z$.

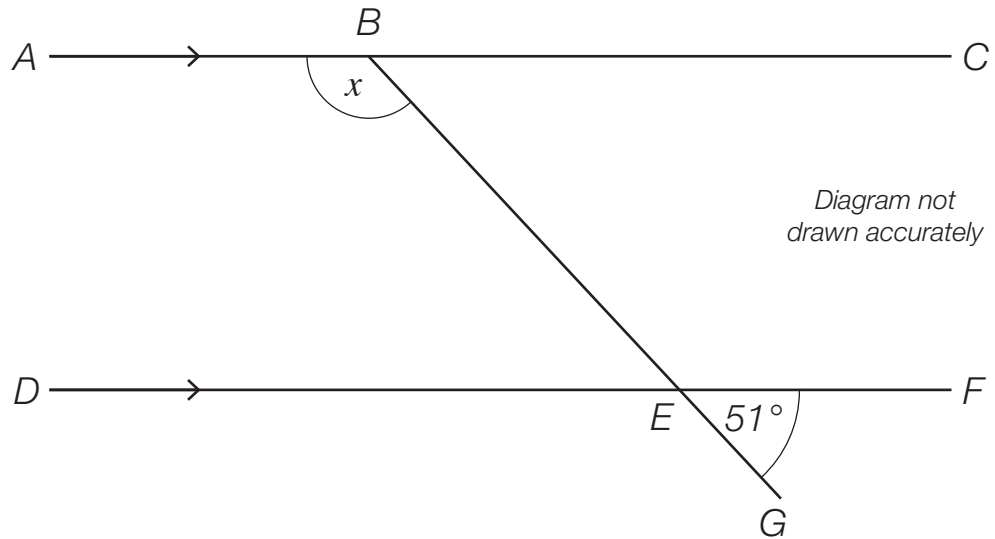
2 marks

Write the next term in the sequence.

$$a, 3a + 15, 5a + 30, \underline{\hspace{2cm}}$$

1 mark

9



ABC and DEF are parallel lines.

BEG is a straight line.

Angle $GEF = 51^\circ$

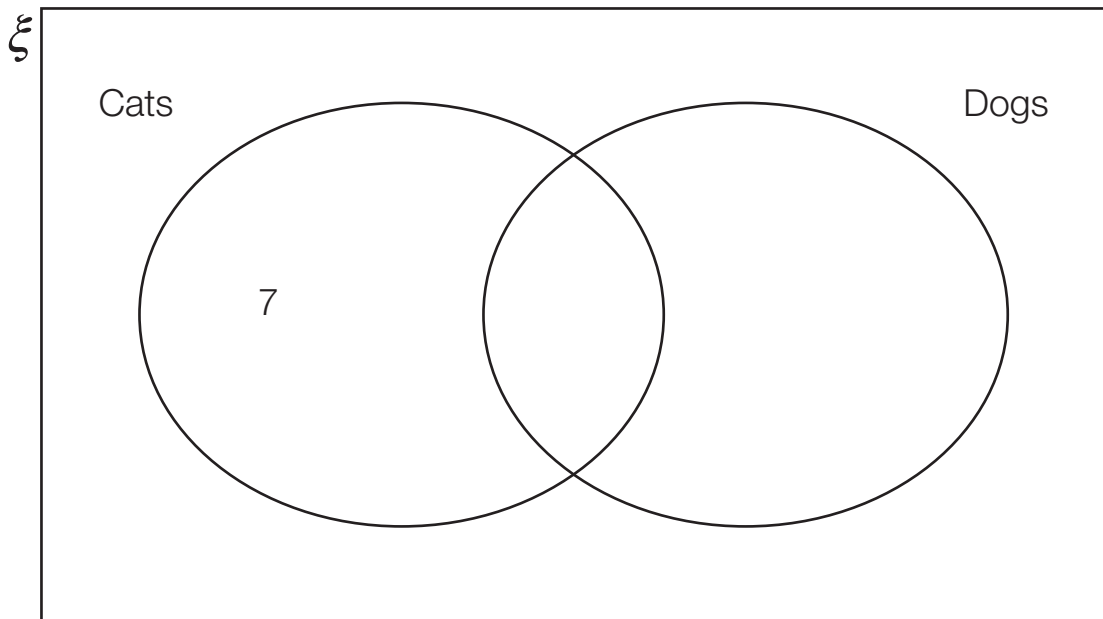
Work out the size of the angle marked x .

Give reasons for your answer.

3 marks

10

The Venn Diagram shows some information about the students in a class who own pets.



There are 30 people in the class.

5 do not own a pet.

8 have both a cat and a dog.

Complete the Venn diagram.

2 marks

One student is chosen at random.

What is the probability they own a cat, but not a dog?

1 mark

11

Complete

$$3 \text{ billion} = 3 \times 10^{\square}$$

1 mark

Put these numbers in order of size, starting with the smallest.

A

3 billion

B

6.5 million

C

 2.8×10^8

D

560 000 000

E

 2.4×10^{10}

2 marks

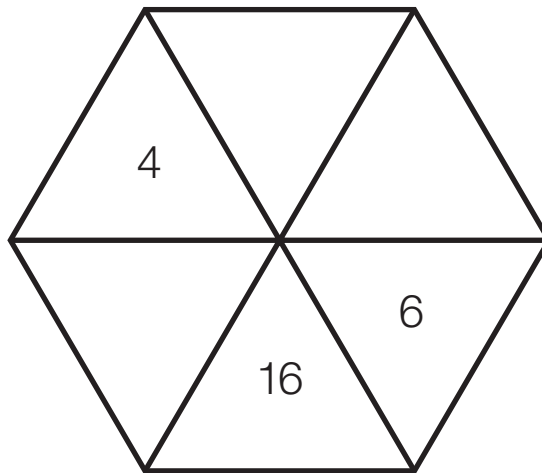
Write down the median of the numbers.

1 mark

12

Complete the spinner so the following statements are true.

- The probability of the spinner landing on a prime number is $\frac{1}{3}$
- The probability of the spinner landing on an even number is $\frac{5}{6}$
- The probability of the spinner landing on a square number is $\frac{1}{2}$



2 marks

13

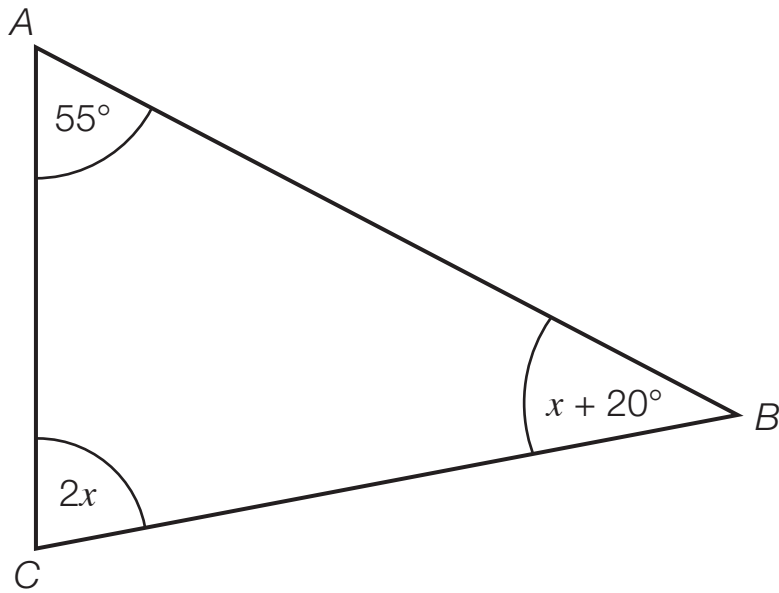


Diagram not drawn accurately

Prove that ABC is an isosceles triangle.

3 marks

END OF TEST

[BLANK PAGE]

Please do not write on this page.

[BLANK PAGE]

Please do not write on this page.