



THIRD SPACE
LEARNING

Mathematics

Paper 1

(Non-Calculator)

Foundation Tier

AQA GCSE

SET 2

Mathematics Paper 1 (Non-Calculator) Foundation Tier AQA

GCSE SET 2

Name

Total marks



Paper length: 1hr 30mins

Instructions

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Answer all questions.
- Answer the questions in the spaces provided
 - there may be more space than you need.
- You must show all your working.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- Calculators may be used.

Information

- The total mark for this paper is 80
- The marks for each question are shown in brackets
 - use this as a guide as to how much time to spend on each question.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used.

Please note, this practice paper is an example to help revision, these topics can be tested in other ways and other topics may be included in the actual papers

- 1 Circle the value of the digit 4 in the number 5.3489

[1 mark]

$$\frac{4}{1000} \quad \frac{4}{10} \quad \frac{4}{100} \quad \frac{4}{1}$$

- 2 Work out $-3 - 7$.

Circle your answer.

[1 mark]

$$4 \quad -10 \quad -4 \quad 10$$

- 3 A triangle has angles 40° , 60° and 80° .

What type of triangle is it?

Circle your answer.

[1 mark]

Isosceles Scalene Equilateral Right-angled

- 4 What is 240 minutes in hours?

Circle your answer.

[1 mark]

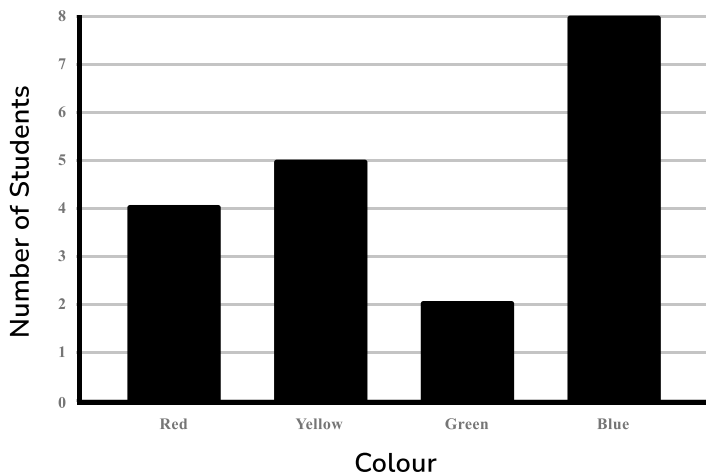
2.4 hours 24 hours 1440 hours 4 hours

5 Work out 3×0.6

[1 mark]

Answer _____

6 Lucy asked some of her friends to choose their favourite colour from red, yellow, green and blue. The bar chart below shows the results.



6(a) How many friends did Lucy ask in total?

[2 marks]

Answer _____

6(b) Write down the mode.

[1 mark]

Answer _____

7 Eloise goes to the shop. She wants to buy:

1 box of cereal for £2.80

2 bananas for 45p each

1 bottle of milk

Milk comes in three different sized bottles.



Eloise wants to buy the biggest bottle of milk she can.

Eloise has £5.

What is the biggest sized bottle of milk Eloise can buy?

Show how you decide.

[3 marks]

Answer _____

Turn over for the next question

8(a) Simplify $3a + a + 6a$

[1 mark]

Answer _____

8(b) Expand $4(2b + 5)$

[1 mark]

Answer _____

9 Ryan had a party. There were 60 guests.

$\frac{1}{6}$ of the guests were men.

$\frac{3}{10}$ of the guests were women.

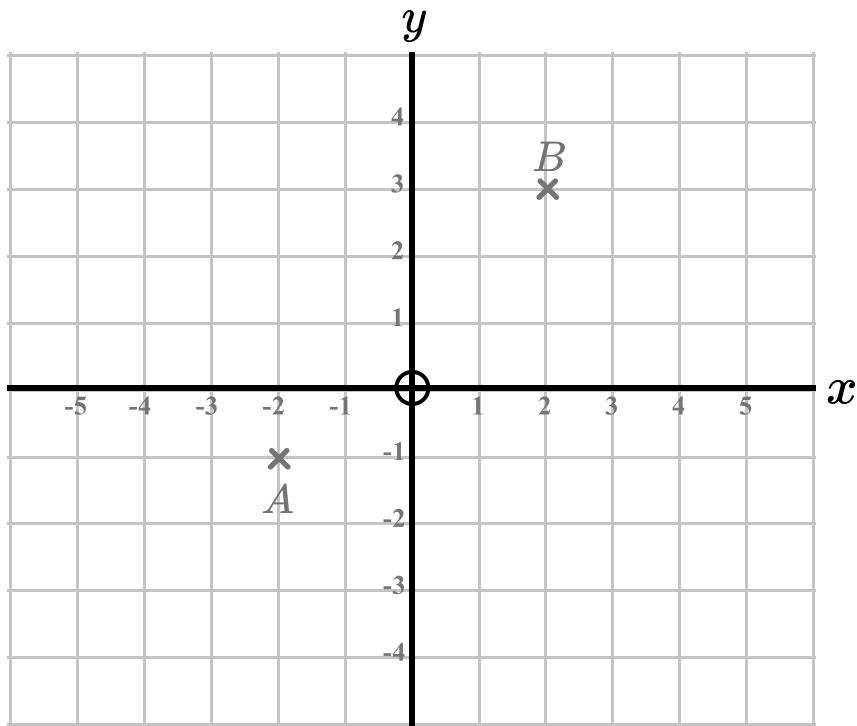
The rest of the guests were children.

How many children attended Ryan's party?

[3 marks]

Answer _____

10



10(a) Plot the point with coordinates (4, 1)

Label the point C.

[1 mark]

10(b) Write down the coordinate of the midpoint of AB.

[1 mark]

Answer _____

Turn over for the next question

- 11** A bag contains yellow counters and green counters only.
number of yellow counters : number of green counters = 2:5

11(a) A counter is picked at random. What is the probability the counter is yellow?

[1 mark]

Answer _____

11(b) There are 10 yellow counters in the bag. How many green counters are there?

[2 marks]

Answer _____

12 Work out 35×27

[2 marks]

Answer _____

- 13 Karam has an object which weighs 400kg .

Which calculation will convert 400kg to grams?

Circle your answer.

[1 mark]

$400 \div 1000$

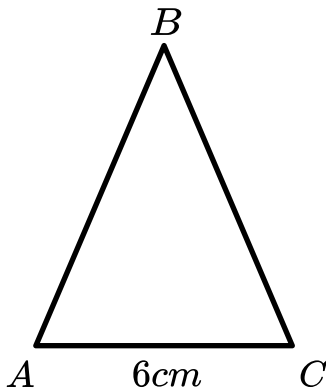
400×10

400×1000

$400 \div 10$

- 14 ABC is an isosceles triangle.

$AB = BC$



The perimeter of the triangle is 24cm .

Work out length AC : length AB

Give your answer in its simplest form.

[3 marks]

Answer _____

15 Jacob asked 40 friends to tell him which animal they like best from cat or dog or rabbit.

- 7 of the 18 of his female friends said cats.
- Twice as many females as males said rabbits.
- 40% of his friends said dogs.
- $\frac{3}{8}$ of his friends said cats.

Complete the two-way table. [3 marks]

	Cat	Dog	Rabbit	Total
Male friends				
Female friends				
Total				40

16 Work out an estimate for $\frac{210 \times 89}{51}$ [3 marks]

Answer _____

- 17 Sam is making beans on toast for lunch. She uses 2 slices of bread, 250g of beans and 40g of cheese.

Bread contains 110 *kcal* per slice.

Baked beans contain 90 *kcal* per 100g.

Cheese contains 400 *kcal* per 100g.

Calculate the total number of calories in Sam's lunch.

You must show all your working.

[4 marks]

Answer _____

- 18 The first two terms of an arithmetic sequence are

$$h \qquad h + 5$$

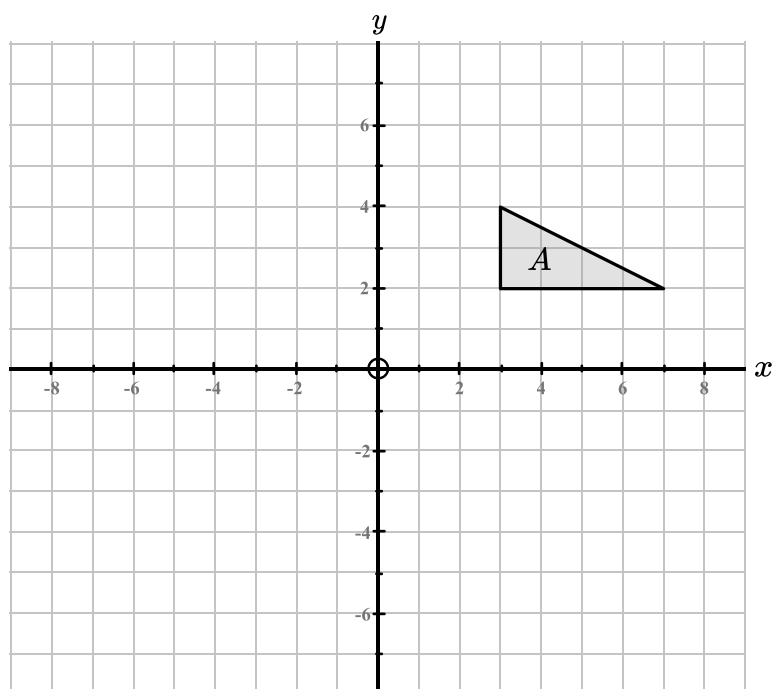
The sum of the first three terms is 39.

Work out the value of h .

[3 marks]

Answer _____

19



Shape A is reflected in the line $x = 1$ to give shape B.

Shape B is reflected in the x axis to give shape C.

Describe the single transformation which takes shape A to shape C.

[3 marks]

20 Solve $x^2 + 4x - 12 = 0$ **[3 marks]**

Answer _____

- 21** Rachel is organising a school disco.

She buys 120 bags of sweets.

The bags of sweets cost 30p each and there is an offer of 'buy 2 bags, get the 3rd free' when Rachel buys them.

Rachel wants to make a 25% profit. Assuming that Rachel will sell all the bags of sweets, how much does Rachel need to charge for each bag of sweets?

[4 marks]

Answer _____

- 22** Work out $2\frac{1}{3} + 1\frac{3}{4}$

Give your answer as a mixed number.

[3 marks]

Answer _____

23 Find the highest common factor of 64 and 80.

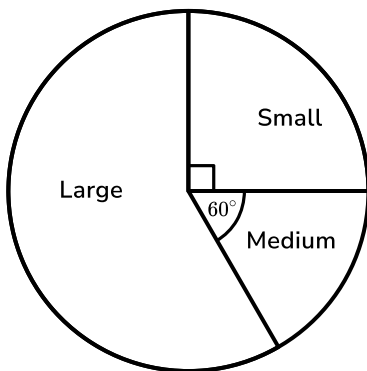
[2 marks]

Answer _____

24 Lily has a bag of 60 marbles.

There are three different sizes of marbles.

The pie chart shows information about the size of the marbles.



Small marbles weigh 2.1g.

Medium marbles weigh 3.5g.

Large marbles weigh 4g.

Work out the total weight of the marbles in Lily's bag.

[4 marks]

Answer _____

25 You are given that $2a + 3b = 0.35$

Write $4a + 6b$ as a fraction in its simplest form.

[2 marks]

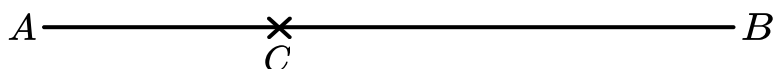
Answer _____

26 C is a point on the straight line AB.

Construct the perpendicular to the line AB at the point C.

You must show all construction lines.

[3 marks]



- 27 Here is some information about the number of hours the boys from a class spent revising for their maths GCSE.

Number of hours, t	Number of students
$0 \leq t < 5$	2
$5 \leq t < 10$	6
$10 \leq t < 15$	4
$15 \leq t < 20$	5
20 or more	2

- 27(a) Write down the class interval that contains the median.

[1 mark]

Answer _____

- 27(b) The range of the number of hours spent revising by the girls in the class was 23 hours.

Josh says that the range for the girls is greater than the range for the boys.

Is Josh correct? Circle your answer.

Yes

No

Can't tell

Explain why this is the case.

[2 marks]

28(a) Write 38×10^3 in standard form.

[1 mark]

Answer _____

28(b) $2.62 \times 10^p + 4.1 \times 10^q = 262.41$

Write down the values of p and q .

[2 marks]

$p =$ _____

$q =$ _____

Turn over for the next question

- 29** Oscar has designed a game.
Oscar has a set of 10 cards, numbered 1 to 10.
A player wins the game if they pick a card that is a prime number.
Olivia picks one card.

29(a) Find the probability that Olivia wins.

[2 marks]

Answer _____

Oscar will charge 50p to play the game.

The prize for winning is £1.

200 people play the game.

29(b) Work out an estimate for the amount of money Oscar will make.

[3 marks]

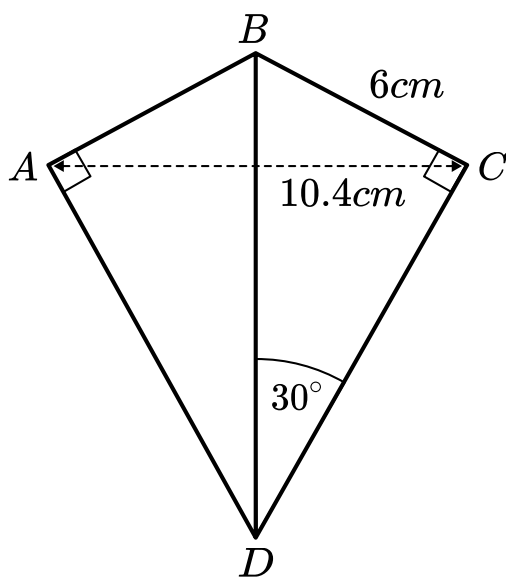
Answer _____

30(a) Write down the exact value of $\sin 30^\circ$.

[1 mark]

Answer _____

30(b) ABCD is a kite.



$$BC = 6\text{ cm}$$

$$AC = 10.4\text{ cm}$$

Work out the area of ABCD.

[4 marks]

Answer _____

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