



THIRD SPACE
LEARNING

Mathematics

Paper 1

(Non-Calculator)

Foundation Tier

Edexcel GCSE

SET 2

Mathematics Paper 1 (Non-Calculator) Foundation Tier

Edexcel 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 not 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 Write $\frac{7}{10}$ as a percentage.

%**(Total for Question 1 is 1 mark)**

- 2 Write the following numbers in order of size.
Start with the smallest.

4 -5 0 -9 11

(Total for Question 2 is 1 mark)

- 3 Here is a list of numbers.

3 7 15 21 53

From the list, write down a multiple of 5.

(Total for Question 3 is 1 mark)

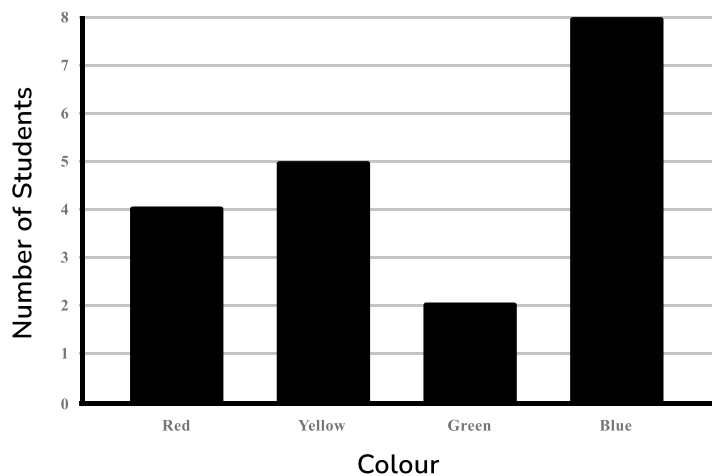
- 4 Write 433 correct to the nearest ten.

(Total for Question 4 is 1 mark)

- 5 Write 240 minutes in hours.

hours**(Total for Question 5 is 1 mark)**

- 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.



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

(2)

- (b) Write down the mode.

(1)

(Total for Question 6 is 3 marks)

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.

(Total for Question 7 is 3 marks)

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

(1)

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

(1)

(c) Expand $c(c - 3)$

(1)

(Total for Question 8 is 3 marks)

9 Ryan had a party. There were 60 guests.

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

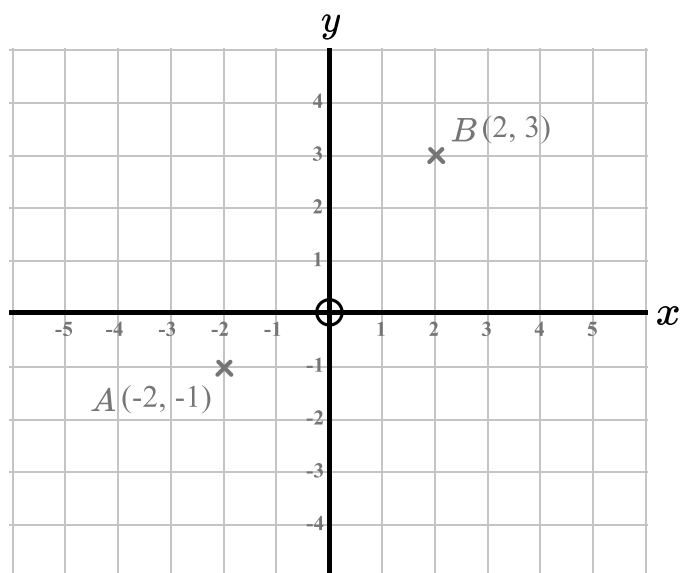
$\frac{3}{10}$ of the guests were women.

The rest of the guests were children.

How many children attended Ryan's party?

(Total for Question 9 is 3 marks)

10



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

Label the point C.

(1)

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

(1)

(Total for Question 10 is 2 marks)

- 11** A bag contains yellow counters and green counters only.

The ratio of yellow counters to green counters = $2 : 5$.

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

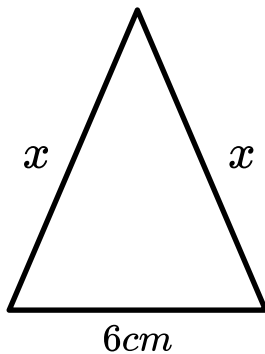
(1)

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

(2)

(Total for Question 11 is 3 marks)

- 12** Here is an isosceles triangle.



The perimeter of the triangle is $24cm$. Work out the value of x .

 cm

(Total for Question 12 is 2 marks)

13 Work out 35×27

(Total for Question 13 is 2 marks)

14 Karam says there are 1000g in a kg therefore $4000\text{kg} = 4\text{g}$.
Explain Karam's mistake.

(Total for Question 14 is 1 mark)

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.

	Cat	Dog	Rabbit	Total
Male friends				
Female friends				
Total				40

(Total for Question 15 is 3 marks)

- 16 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.

kcal

(Total for Question 16 is 4 marks)

- 17 Work out an estimate for $\frac{210 \times 89}{51}$

(Total for Question 17 is 3 marks)

- 18 The first five terms of an arithmetic sequence are

3 7 11 15 19

(a) Write down an expression, in terms of n , for the n th term of this sequence.

(2)

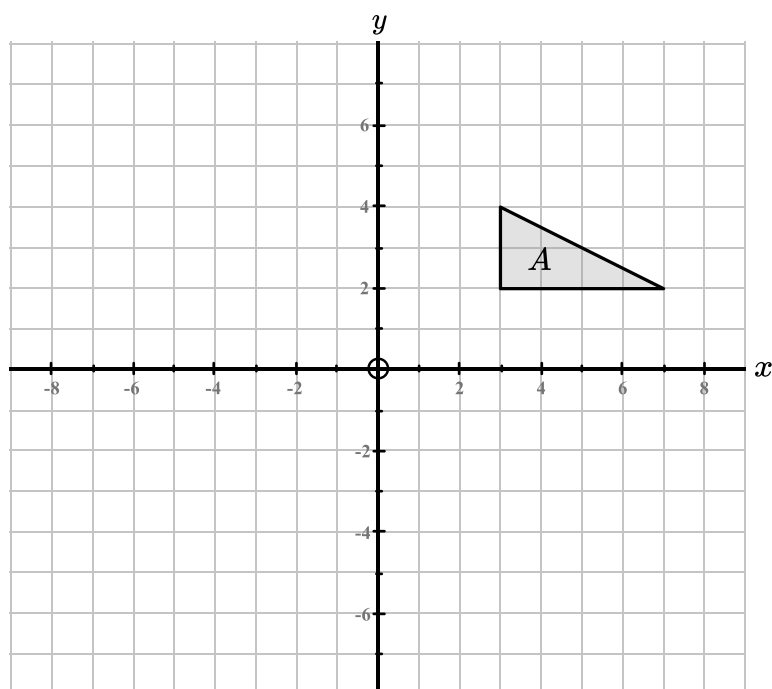
(b) Is the number 101 in the sequence?

Show how you decide.

(2)

(Total for Question 18 is 4 marks)

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.

(Total for Question 19 is 3 marks)

20 (a) Expand and simplify $(x - 3)(x - 8)$

(2)

(b) Solve $x^2 + 4x - 12 = 0$

(3)

(Total for Question 20 is 5 marks)

21 Rachel is organising a school disco.

She buys 120 bags of sweets.

The bags of sweets cost Rachel 30p each and there is an offer of ‘buy 2 bags, get the 3rd free’ when she 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?

(Total for Question 21 is 4 marks)

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

Give your answer as a mixed number.

(Total for Question 22 is 3 marks)

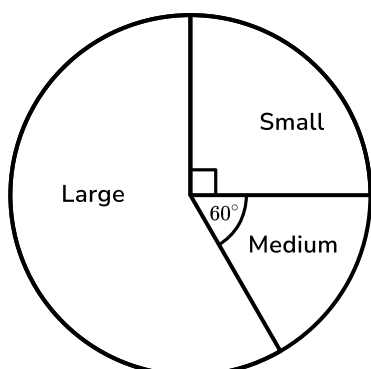
23 Find the highest common factor of 64 and 80.

(Total for Question 23 is 2 marks)

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.

-----g
(Total for Question 24 is 4 marks)

25 (a) Write 3.8×10^{-5} as an ordinary number.

(1)

(b) Work out $2 \times 10^2 \times 4.1 \times 10^5$

Give your answer in standard form.

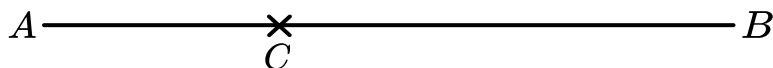
(2)

(Total for Question 25 is 3 marks)

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.



(Total for Question 26 is 3 marks)

27 These stem and leaf diagrams show some information about the number of hours the children from a class spent revising for their maths GCSE.

0	2 7
1	0 1 5 6 9 9
2	0 1 4 5
3	1 5 6 6 7
4	0 2

Boys

0	1 2 4 7 9
1	1 3 4 5 6 7 9
2	2 4 5
3	0 4
4	

Girls

Key:

1|1 represents
11 hours

Compare the amount of time spent revising by the boys to the amount of time spent revising by the girls.

(Total for Question 27 is 2 marks)

28 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.

(a) Find the probability that Olivia wins.

(2)

Oscar will charge $50p$ to play the game.

The prize for winning is £1.

200 people play the game.

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

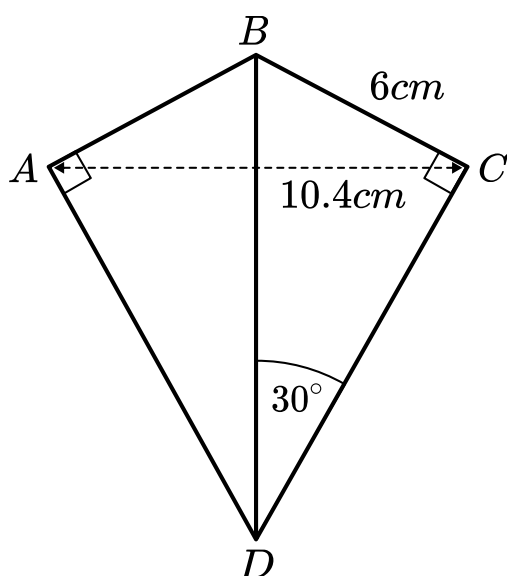
(3)

(Total for Question 28 is 5 marks)

29 (a) Write down the exact value of $\sin 30$

(1)

(b) ABCD is a kite.



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

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

Work out the area of ABCD.

(4)

(Total for Question 29 is 5 marks)

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