

The Holy Family

Catholic School

a voluntary academy



YEAR 11 PAZ 3 April 2024

Student Name

Candidate Number

Subject Teacher

Form

Subject: Mathematics

Level: Foundation GCSE

Title of Paper: Paper 3 Calculator Allowed

Duration of Paper: 1 hour and 30 minutes

Head of Faculty: Mrs Charlton

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write 35% as a decimal.

.....
(Total for Question 1 is 1 mark)

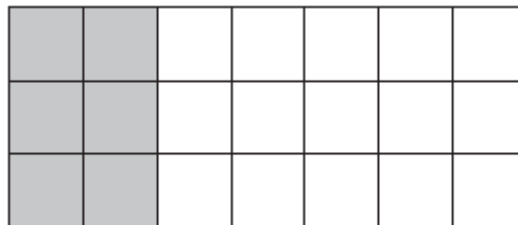
2 Write 8061 correct to the nearest hundred.

.....
(Total for Question 2 is 1 mark)

3 Write down a number that is less than -5

.....
(Total for Question 3 is 1 mark)

4 Here is a grid of squares.



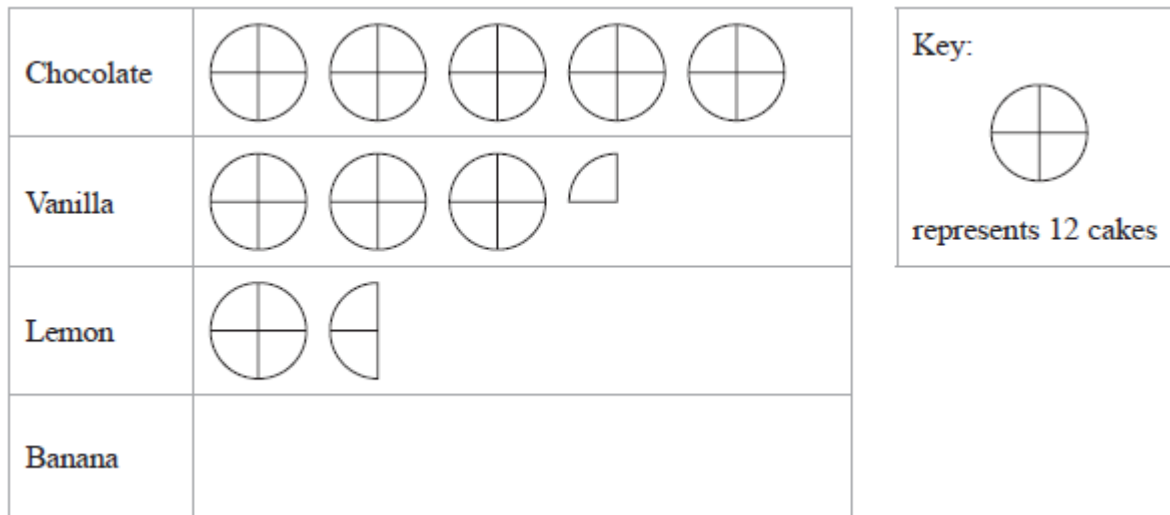
What fraction of the grid is shaded?

.....
(Total for Question 4 is 1 mark)

5 Write down the value of the 9 in the number 27.963

.....
(Total for Question 5 is 1 mark)

6 The pictogram shows information about the number of chocolate cakes, vanilla cakes and lemon cakes sold by Year 7 at a school fair.



24 banana

cakes were sold by Year 7

(a) Use this information to complete the pictogram.

(1)

At the fair, Year 8 sold a total of 150 cakes.

(b) Which Year sold most cakes at the fair, Year 7 or Year 8?
You must show how you get your answer.

(3)

(Total for Question 6 is 4 marks)

7 Miklos is swimming lengths of a swimming pool.
Each length of the pool is 25 m.

Miklos has swum 178 lengths of the pool.
He wants to swim a total distance of 8050 m.

Calculate how many more lengths Miklos needs to swim.

.....
(Total for Question 7 is 3 marks)

8 Here are the first four terms of a number sequence.

97 91 85 79

(a) Explain how to work out the next number of the sequence.

.....
(1)

(b) Work out the difference between the 5th term and the 7th term of the sequence.

.....
(2)

(c) Explain why 52 is **not** a number in this sequence.

.....
.....
(1)

(Total for Question 8 is 4 marks)

9 A chess match lasted $3\frac{1}{4}$ hours.

The match finished at 14 10

At what time did the chess match start?

.....

(Total for Question 12 is 2 marks)

10 (a) Simplify $8h^3 + 14h^3 - 2h^3$

.....

(1)

(b) Simplify $(9y + 12y) \div 3$

.....

(1)

(Total for Question 13 is 2 marks)

11 Write the following numbers in order of size.
Start with the smallest number.

$\frac{7}{12}$ 0.56 57% $\frac{6}{11}$ 0.558

.....

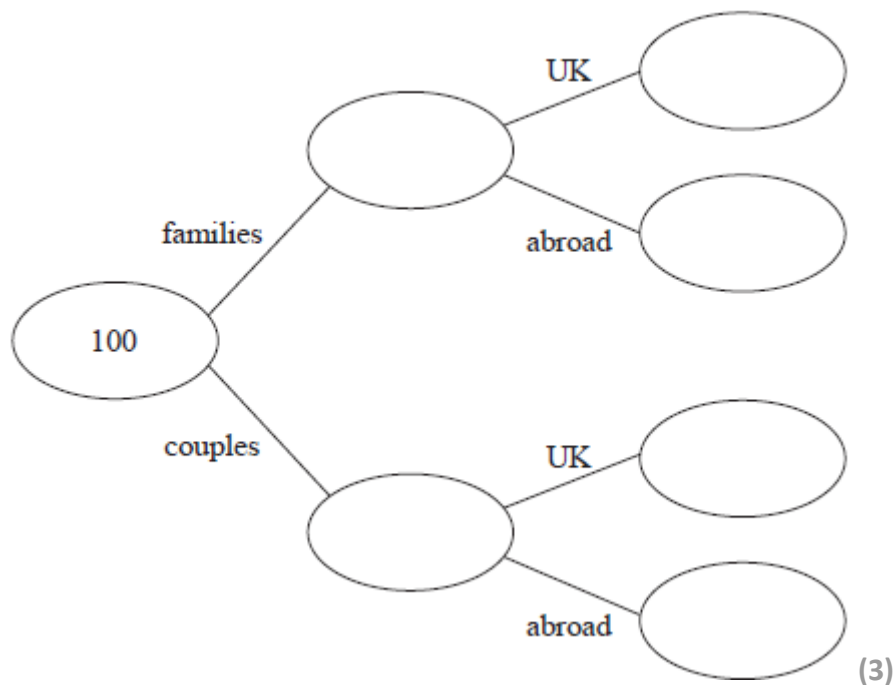
(Total for Question 14 is 2 marks)

12 A travel agent sold 100 holidays in April.
Each of these holidays was in the UK or was abroad.

64 of the 100 holidays were sold to families.
The rest of the holidays were sold to couples.

11 of the 18 holidays abroad were sold to couples.

(a) Use this information to complete the frequency tree.



One of the holidays sold to a family is chosen at random.

(b) Find the probability that this holiday was **not** abroad.

.....
(2)

(Total for Question 15 is 5 marks)

13 Solve $\frac{x}{7} + 9 = 4$

$x = \dots\dots\dots$

(Total for Question 16 is 2 marks)

14 Blake works 32 hours a week in the UK.
She is paid £473.28 per week.

Blake applies for a job in Australia.
The rate of pay is 26.40 Australian dollars per hour.

£1 = 1.796 Australian dollars

Blake thinks the rate of pay in Australia is greater than the rate of pay in the UK.

Is Blake correct?
You must show how you get your answer.

(Total for Question 17 is 3 marks)

15 (a) Write 468 000 in standard form.

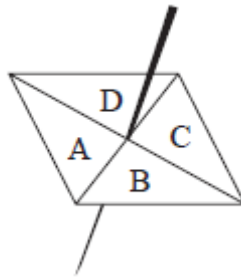
.....
(1)

(b) Write 5.037×10^{-4} as an ordinary number.

.....
(1)

(Total for Question 20 is 2 marks)

16 Here is a biased spinner.



The table shows the probabilities that when the spinner is spun it will land on A, on B, on C and on D.

Letter	A	B	C	D
Probability	0.4	0.21	0.32	0.07

Luka will spin the spinner 200 times.

Work out an estimate for the number of times the spinner will land on A.

.....
(Total for Question 21 is 2 marks)

17 Ali buys packs of balloons and boxes of pencils.

There are 30 balloons in each pack.

There are 24 pencils in each box.

Ali buys exactly the same number of balloons and pencils.

Work out how many packs of balloons and how many boxes of pencils she could have bought.

You must show all your working.

..... packs of balloons

..... boxes of pencils

(Total for Question 24 is 3 marks)

18 A company orders a large number of plates from a factory.

It would take 30 hours to make all the plates using 4 machines.

How many machines are needed to make all the plates in 6 hours?

.....
(Total for Question 25 is 2 marks)

19 Riley travelled by car and by aeroplane.

He travelled 143 miles by car at an average speed of 55 miles per hour.

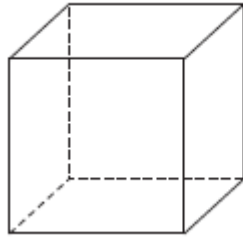
Riley then travelled for 5 hours and 20 minutes by aeroplane.

Work out, in hours and minutes, Riley's total travelling time.

..... hours minutes

(Total for Question 26 is 3 marks)

20 The diagram shows a solid cube placed on a horizontal table.



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

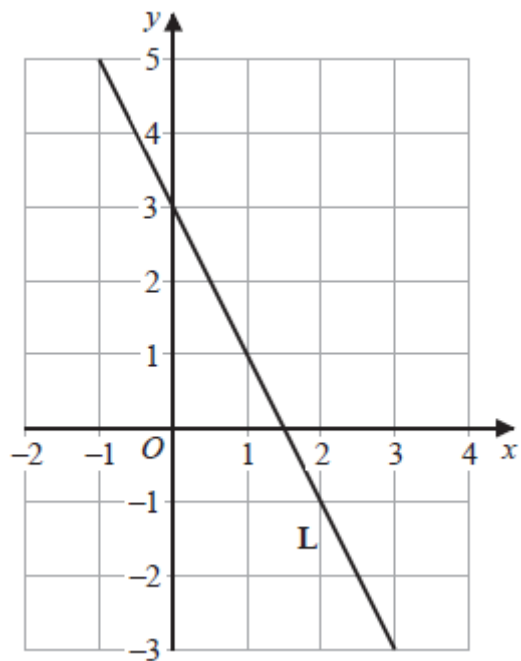
The pressure on the table due to the cube is 3.5 newtons/cm^2

The force exerted by the cube on the table is 504 newtons.

Show that the total surface area of the cube is less than 900 cm^2

(Total for Question 27 is 3 marks)

21 The line L is shown on the grid.



Find an equation for L.

.....
(Total for Question 28 is 3 marks)

TOTAL FOR PAPER IS 50 MARKS