GCSE Grade 4

Maths Booklet 1

Paper 2H
Calculator

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Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 (a) Simplify $m^3 \times m^4$

....

(1)

(b) Simplify $(5np^3)^3$

....

(2)

(c) Simplify $\dfrac{32q^9r^4}{4q^3r}$

....

(2)

(Total for Question 1 is 5 marks)

2 (a) Find the lowest common multiple (LCM) of 40 and 56

....

(2)

$A = 2^3 \times 3 \times 5$ $\qquad$ $B = 2^2 \times 3 \times 5^2$

(b) Write down the highest common factor (HCF) of A and B.

....

(1)

(Total for Question 2 is 3 marks)

3 The line **L** is shown on the grid.
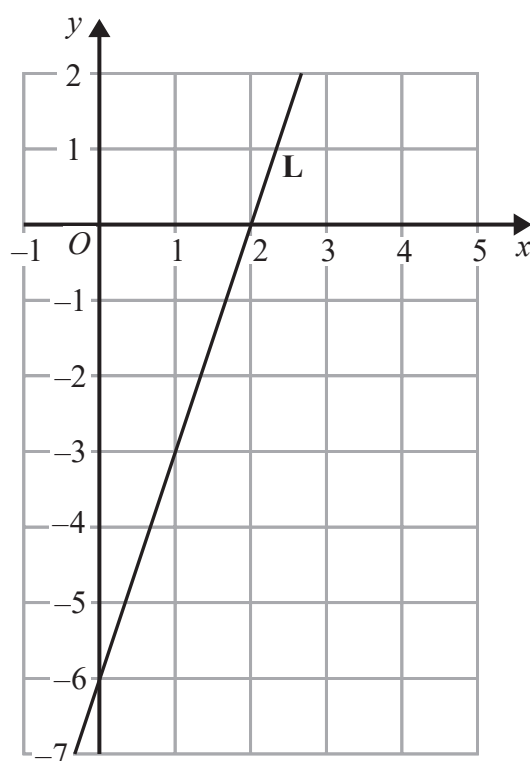
Find an equation for **L**.

....

(Total for Question 3 is 3 marks)

P48528A0424

4   Raya buys a van for £8500 plus VAT at 20%

Raya pays a deposit for the van.
She then pays the rest of the cost in 12 equal payments of £531.25 each month.

Find the ratio of the deposit Raya pays to the total of the 12 equal payments.
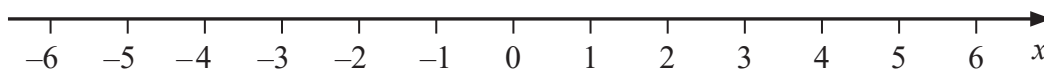Give your answer in its simplest form.

....

(Total for Question 4 is 5 marks)

Turn over ▶

P 4 8 5 2 8 A 0 5 2 4

5 (a) Solve $14n > 11n + 6$

....

(b) On the number line below, show the set of values of x for which $-2 < x + 3 \leqslant 4$

$$\begin{array}{ccccccccccccc} -6 & -5 & -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 & 5 & 6 \end{array} \quad x$$

(3)

(Total for Question 5 is 5 marks)

6 On the grid below, draw the graph of $y = 2x - 3$ for values of x from -2 to 4
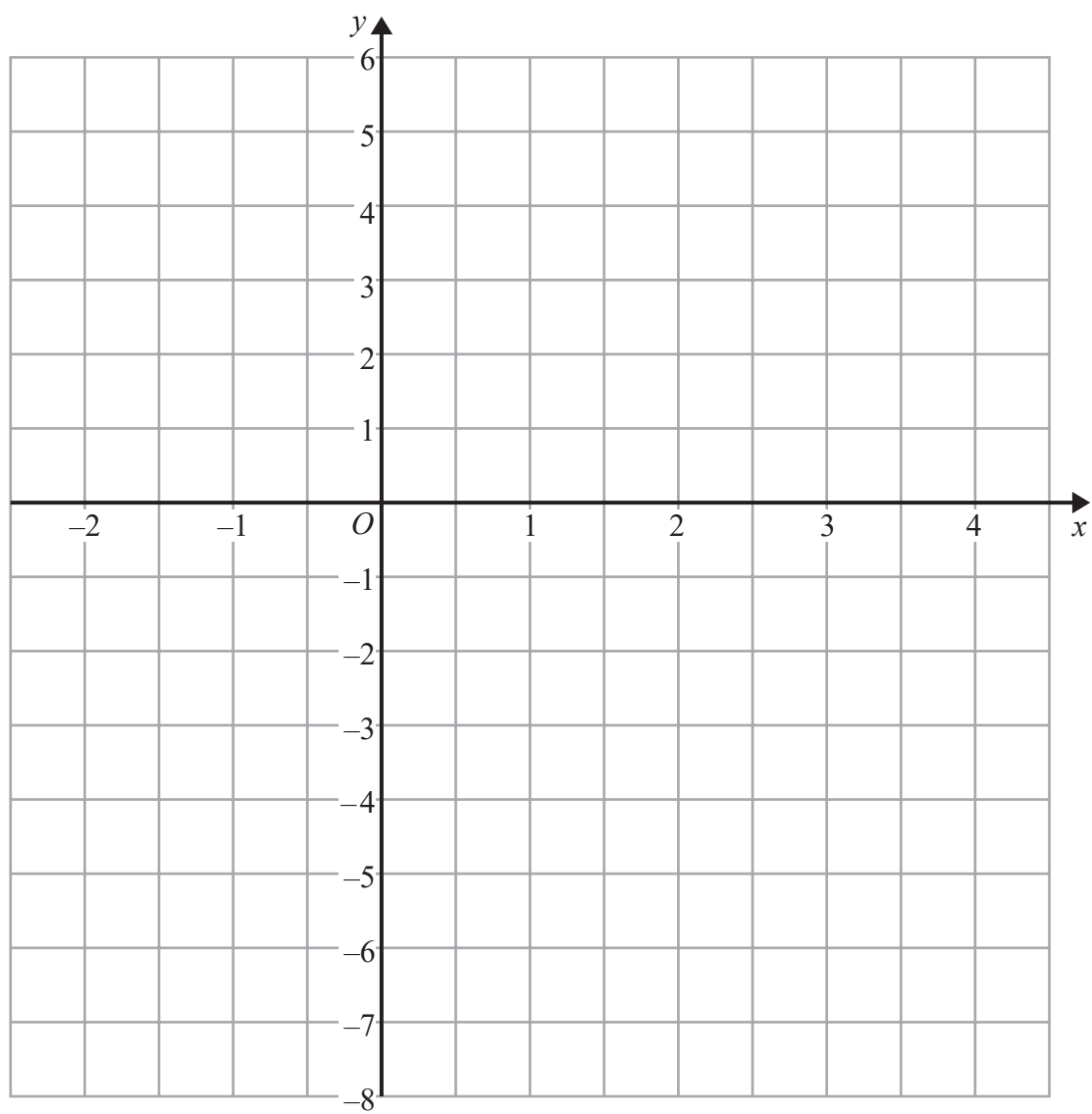
(Total for Question 6 is 3 marks)

7 Hannah is planning a day trip for 195 students.

She asks a sample of 30 students where they want to go.
Each student chooses one place.

The table shows information about her results.

Place	Number of students
Theme Park	10
Theatre	5
Sports Centre	8
Seaside	7

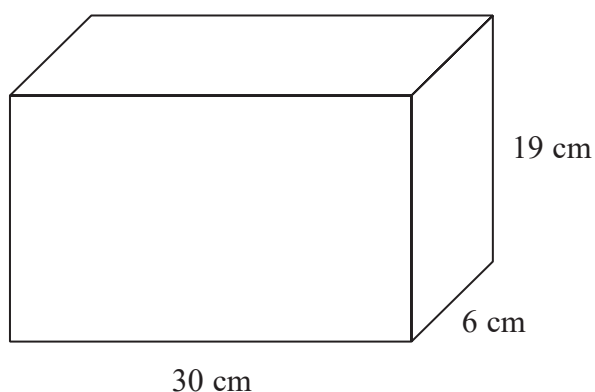(i) Work out how many of the 195 students you think will want to go to the Theme Park.

....

(2)

(ii) State any assumption you made **and** explain how this may affect your answer.

....

....

....

(1)

(Total for Question 7 is 3 marks)

8 A container is in the shape of a cuboid.

19 cm

6 cm

30 cm

The container is $\frac{2}{3}$ full of water.

A cup holds 275 m*l* of water.

What is the greatest number of cups that can be completely filled with water from the container?

....

(Total for Question 8 is 4 marks)