

Name: _____

Maths Genie Stage 4

Test C

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- **Calculators may not be used.**



Information

- 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

1 Change 800 millilitres to litres

..... litres

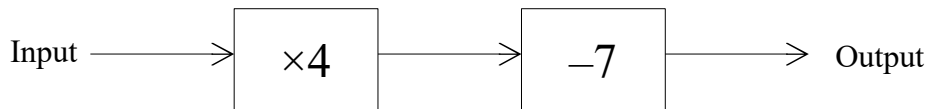
(Total for Question 1 is 1 mark)

2 Change 50 kilograms to grams.

..... grams

(Total for question 2 is 1 mark)

3 Here is a number machine.



(a) What is the **output** when the **input** is 5?

.....
(1)

(b) What is the **input** when the **output** is 29?

.....
(2)

(Total for Question 3 is 3 marks)

4 Which is greater
24% of 140 or 31% of 110

You must show your working.

.....
(Total for Question 4 is 3 marks)

5 (a) Write the ratio 25 : 40 in its simplest form.

.....
(1)

(b) There are red shapes and blue shapes in a box, $\frac{5}{8}$ of the shapes are red.

Write the ratio of red shapes to blue shapes.

.....
(1)

(Total for Question 5 is 2 marks)

6 The accurate scale drawing shows two towns, Town A and Town B.

Town A
X

X Town B

The scale is 1:50000

Find the real distance between Town A and Town B, in kilometres.

..... km

(Total for Question 6 is 3 marks)

7 Stan has an income of £3000 a month.

He spends $\frac{2}{5}$ of his income on rent.

He spends $\frac{4}{15}$ of his income on bills.

He spends $\frac{1}{10}$ of his income on food.

Stan saves the rest of his income.

Work out how much Stan saves each month.

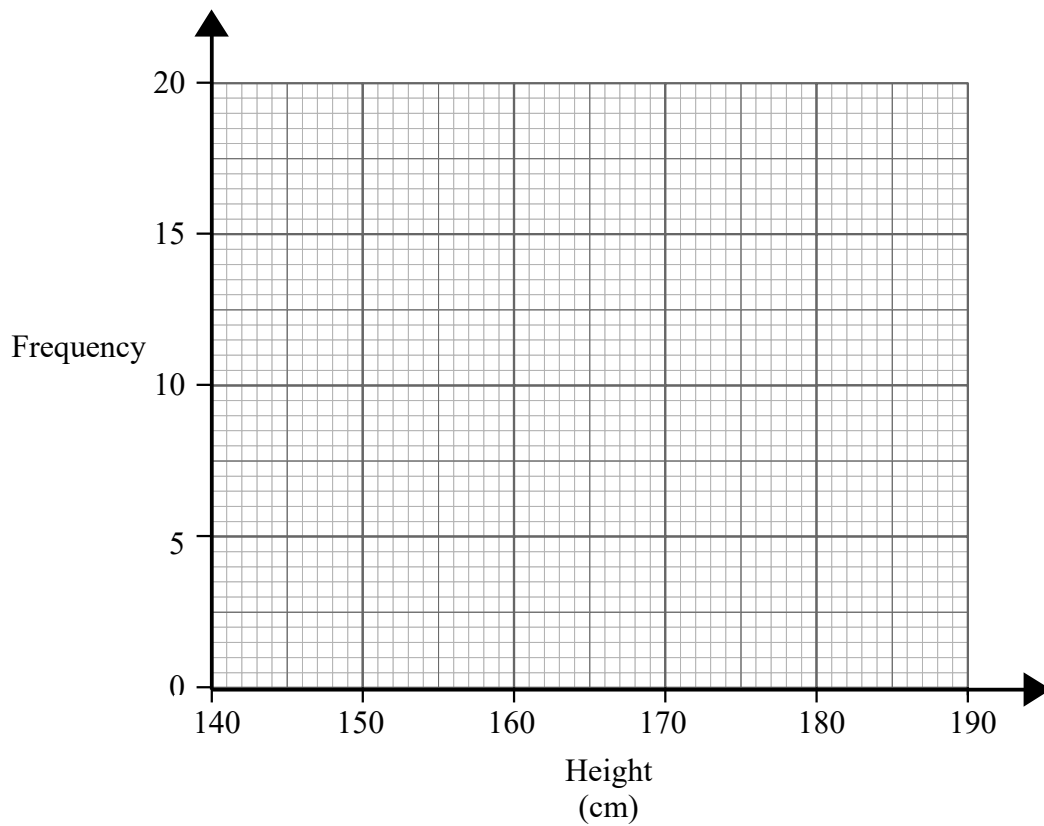
£.....

(Total for question 7 is 3 marks)

8 The frequency table shows the heights, in cm, of some tomato plants.

Height (cm)	Frequency
$140 < h \leq 150$	11
$150 < h \leq 160$	8
$160 < h \leq 170$	17
$170 < h \leq 180$	15
$180 < h \leq 190$	9

Draw a frequency polygon to show this information.



(Total for Question 8 is 2 marks)

9 (a) Work out $2\frac{1}{3} + 1\frac{2}{5}$

.....
(2)

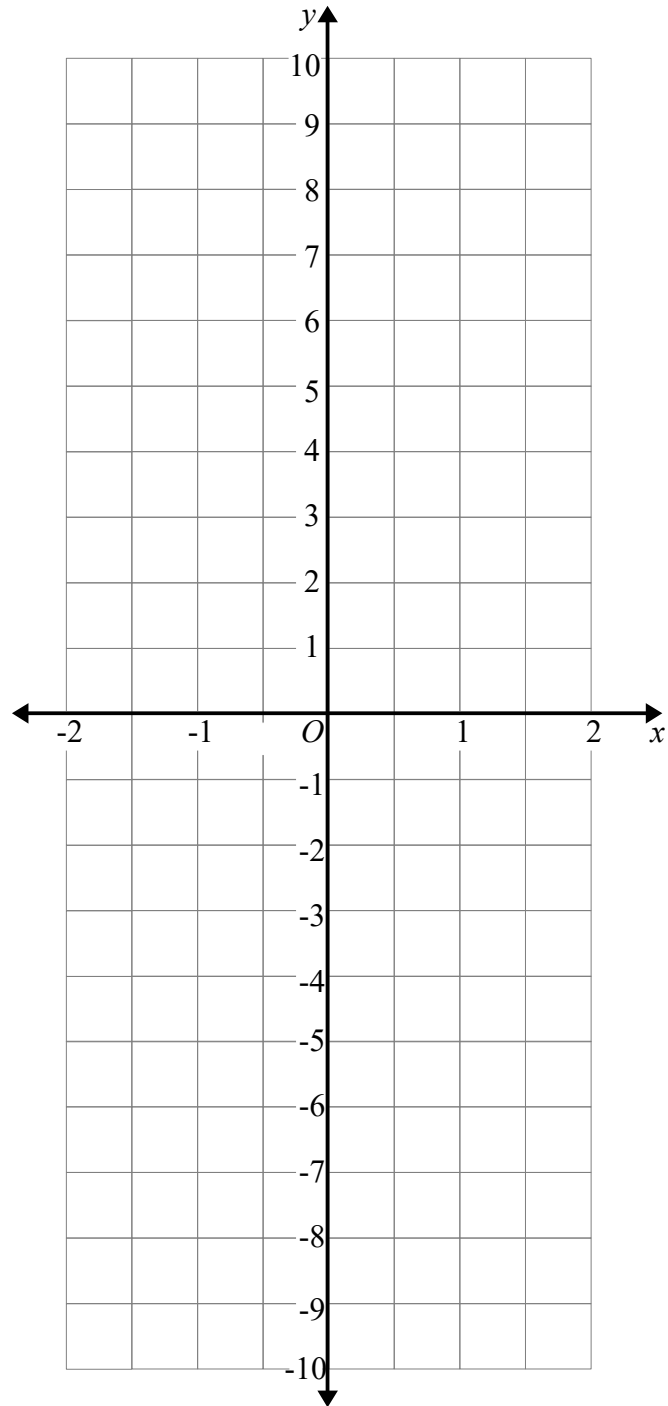
(b) Work out $2\frac{1}{4} \div \frac{3}{5}$

Give your answer as a mixed number in its simplest form.

.....
(2)

(Total for Question 9 is 4 marks)

10 On the grid, draw the graph of $y = 2 - 3x$ for values of x from -2 to 2



(Total for Question 10 is 3 marks)
