

Name: _____

Maths Genie Stage 4

Test A

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 18 metres to cm.

.....cm

(Total for Question 7 is 1 mark)

2 Change 700 metres to kilometres.

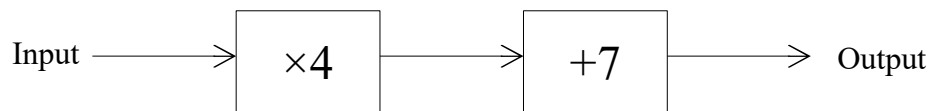
.....km

(Total for Question 8 is 1 mark)

3 Work out $\frac{4}{7}$ of 63

.....
(Total for Question 10 is 2 marks)

4 Here is a number machine.



(a) What is the **output** when the **input** is 3?

.....
(1)

(b) What is the **input** when the **output** is 55?

.....
(2)

(Total for Question 4 is 3 marks)

5 (a) Write the ratio 40 : 16 in its simplest form

.....
(1)

(b) $\frac{5}{7}$ of chocolates in a box are white chocolate, the rest are milk chocolate.

Write the ratio of white chocolates to milk chocolates.

.....
(1)

(Total for Question 5 is 2 marks)

6 A map has the scale of 1:50000

The distance between two points on the map is 15 cm.

Work out the real distance between the two points. Give your answer in kilometres.

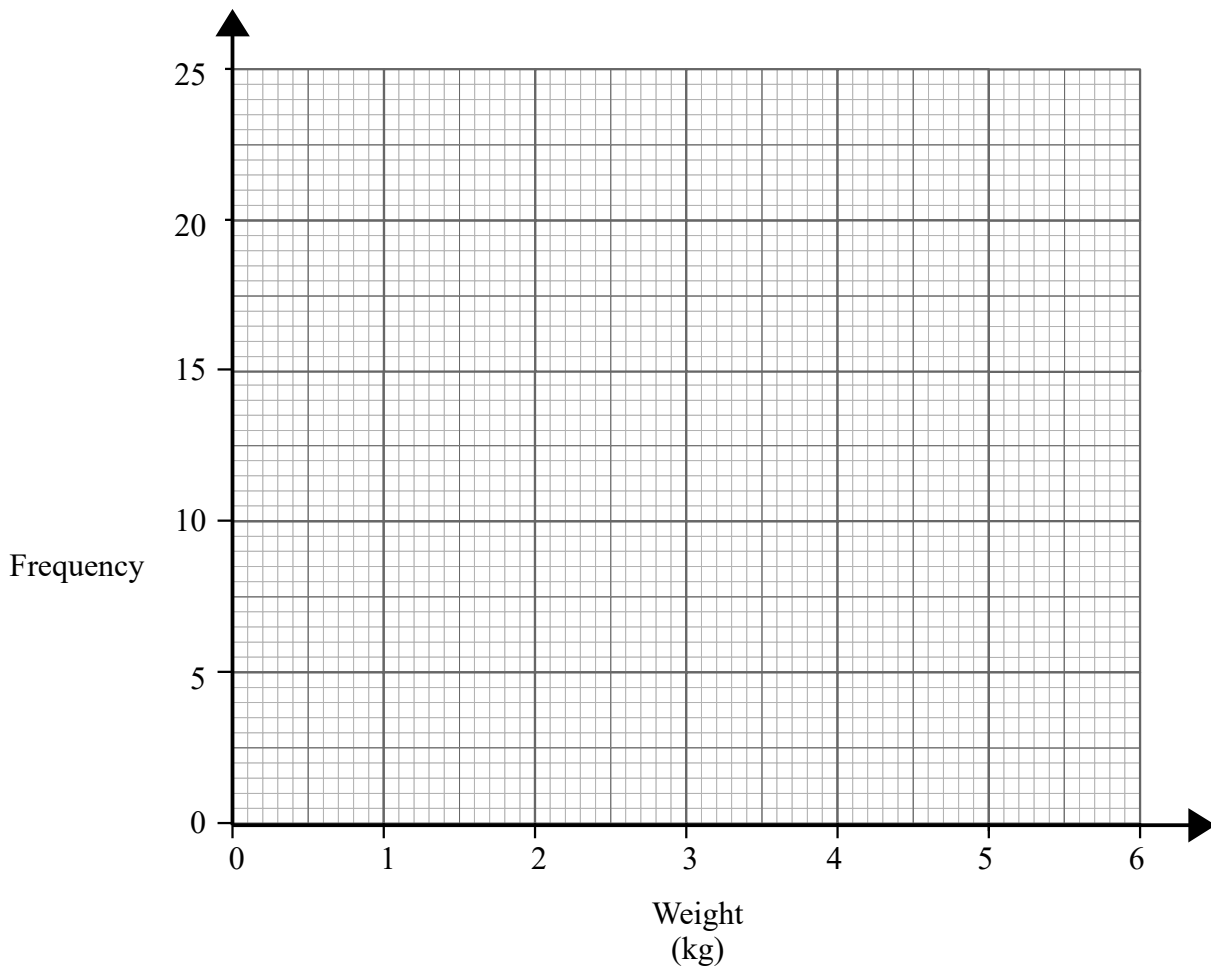
.....
km

(Total for Question 6 is 3 marks)

7 The frequency table shows the weight, in kg, of some cats.

Weight (kg)	Frequency
$0 < w \leq 1$	8
$1 < w \leq 2$	10
$2 < w \leq 3$	21
$3 < w \leq 4$	19
$4 < w \leq 5$	13
$5 < w \leq 6$	9

Draw a frequency polygon to show this information.



(Total for Question 7 is 2 marks)

8 (a) Work out $\frac{2}{9} + \frac{3}{8}$

(b) Work out $\frac{4}{5} \div \frac{2}{7}$

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

.....
(2)

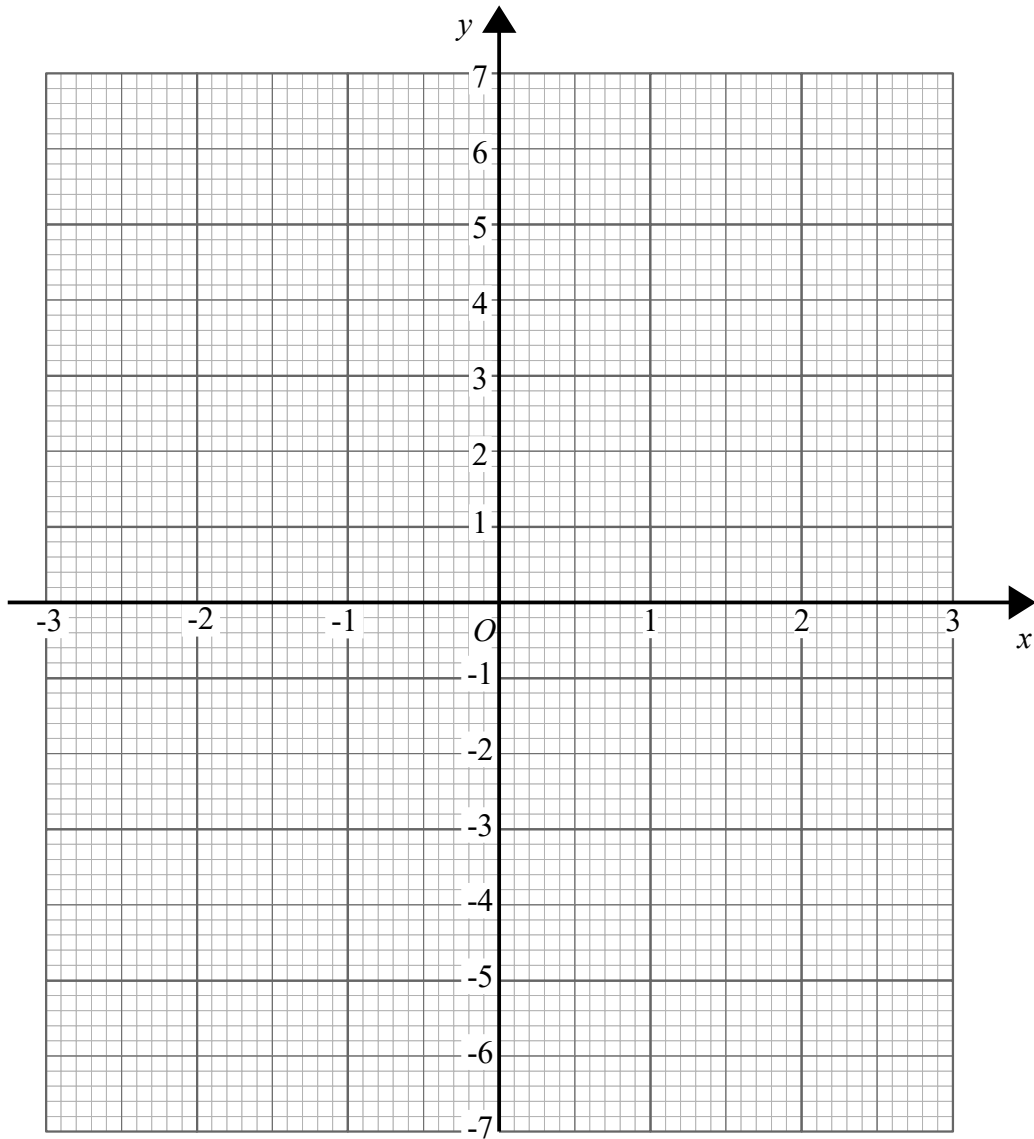
.....
(2)
(Total for Question 8 is 4 marks)

9 Which is greater
30% of 260 or 45% of 175

You must show your working.

.....
(Total for Question 9 is 3 marks)

10 (a) On the grid, draw the graph of $y = 2x + 1$ for x values from -3 to 3



(3)

(b) Use your graph to find the value of x when $y = 1.8$

.....
(1)

(Total for Question 10 is 4 marks)