

Topic Test 1 (20 minutes)

Ratio and proportion - Foundation

1 The workers in a company are in the ratio female : male = 1 : 4.5

1 (a) What fraction of the workers are female?

[2 marks]

Answer _____

1 (b) The company has 150 female workers.

How many workers are there altogether?

[2 marks]

Answer _____

2 $a : b = 2 : 7$

$$a^2 = 36$$

Work out the **two** possible values of b .

[3 marks]

Answer _____ and _____

- 3** A box contains 192 pens,
They are red, green or blue.
A quarter of the pens are red.
The ratio green pens : blue pens = 1 : 8

How many blue pens are there?

[4 marks]

Answer _____

4 $x : y = 5 : 1$

- 4 (a)** Circle the equation of y as a function of x .

[1 mark]

$$y = \frac{x}{6}$$

$$y = \frac{x}{5}$$

$$y = 5x$$

$$y = 6x$$

- 4 (b)** Show that $x + y : x - y = 3 : 2$

[2 marks]

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- 5** 90 hazelnuts have a mass of 125 g
Hazelnuts have 630 calories per 100 g

Work out the number of calories per hazelnut.

[3 marks]

Answer _____ calories

- 6** Jake and Kim share some money in the ratio 1 : 3
Kim gets £90 **more** than Jake.

How much does Kim get?

[3 marks]

Answer £ _____