Topic Test 1 (20 minutes)
Ratio and proportion - Higher

1 $x : y = 5 : 1$

1 (a) Circle the equation of y as a function of x.

[1 mark]

$y = \dfrac{x}{6}$ $\qquad\qquad$ $y = \dfrac{x}{5}$ $\qquad\qquad$ $y = 5x$ $\qquad\qquad$ $y = 6x$

1 (b) Show that $\quad x + y : x - y = 3 : 2$

[2 marks]

2   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

3 Jake, Kim and Lee share some money in the ratio 1 : 3 : 6

Kim gets £9 **more** than Jake.

How much does **Lee** get?

[3 marks]

Answer £ _____

4 A spice mix contains coriander and cumin in the ratio $\frac{1}{2}$ cup : $\frac{1}{4}$ cup
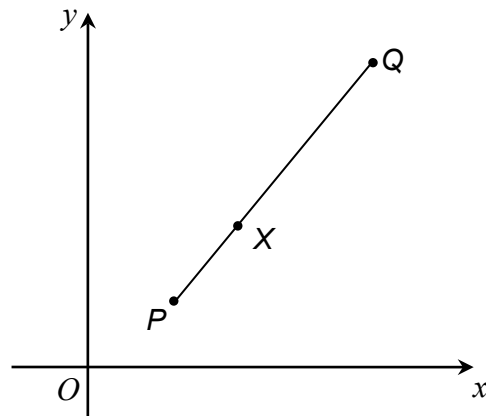
A cup of coriander is 80 grams.
A cup of cumin is 100 grams.

Work out the mass of 6 cups of the spice mix.

[4 marks]

Answer _____ grams

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5 *X* divides the line *PQ* in the ratio 2 : 3

P is (2, 1) and *Q* is (12.5, 7.5)

Not drawn accurately

Work out the coordinates of the point *X*.

[4 marks]

Answer (,   )

6 Bob sells hats and scarves.

At the start of the day, he has   hats : scarves = 4 : 3
During the day he sells 25 hats.
At the end of the day, he has   hats : scarves = 7 : 9

Work out the number of scarves he has.

[3 marks]

Answer _____