

Question 1 (3 Marks)

Rosie, Matilda and Ibrahim collect stickers.

$$\frac{\text{number of stickers}}{\text{Rosie has}} : \frac{\text{number of stickers}}{\text{Matilda has}} : \frac{\text{number of stickers}}{\text{Ibrahim has}} = 4:7:15$$

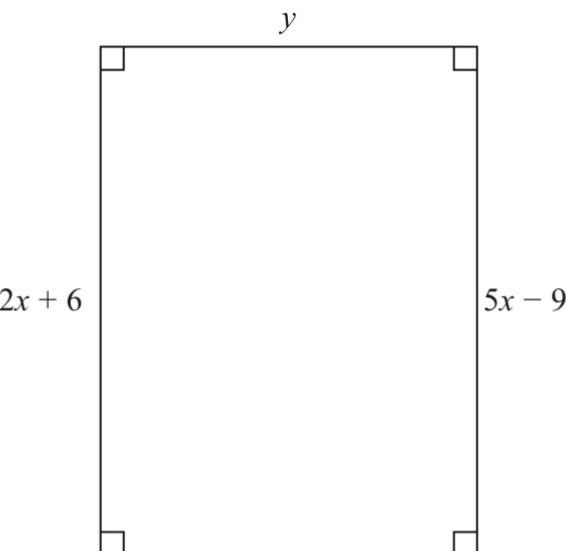
Ibrahim has 24 more stickers than Matilda.

Ibrahim has more stickers than Rosie.

How many more?

Question 2 (4 Marks)

Here is a rectangle.



All measurements are in centimetres.

The area of the rectangle is 48 cm^2 .

Show that $y = 3$

Question 3 (2 Marks)

Two numbers m and n are such that

m is a multiple of 5

n is an even number

the highest common factor (HCF) of m and n is 7

Write down a possible value for m and a possible value for n .

$m =$

$n =$

Question 4 (3 Marks)

There are 10 boys and 20 girls in a class.

The class has a test.

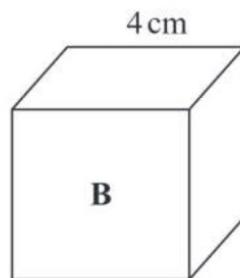
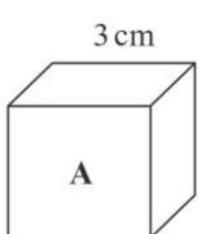
The mean mark for all the class is 60

The mean mark for the girls is 54

Work out the mean mark for the boys.

Question 5 (3 Marks)

Here are two cubes, **A** and **B**.



Cube **A** has a mass of 81 g.

Cube **B** has a mass of 128 g.

Work out

the density of cube **A** : the density of cube **B**

Give your answer in the form $a : b$, where a and b are integers.

(Total 15 Marks)