

Revision Exercise 2

1.

Fahima buys

- 2 packets of bread rolls costing £1.50 for each packet
- 1 bottle of ketchup costing £1.60
- 3 packets of sausages

Fahima pays with a £10 note.
She gets 30p change.

Fahima works out that one packet of sausages costs £2.30

Is Fahima right?
You must show how you get your answer.

2.

Sean works for a company.
His normal rate of pay is £12 per hour.

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

Work out the total amount of money Sean earned on Monday.

3.

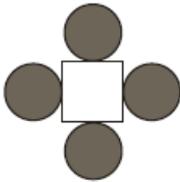
A farmer has 20 boxes of eggs.
There are 6 eggs in each box.

Write, as a ratio, the number of eggs in two boxes to the total number of eggs.
Give your answer in its simplest form.

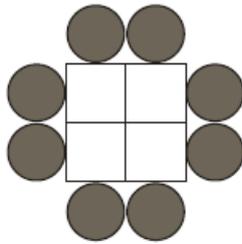
4.

A sequence of patterns is made from circular tiles  and square tiles 

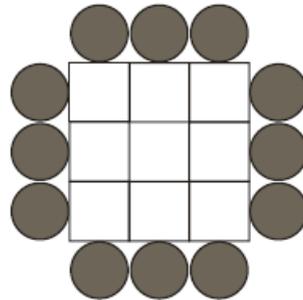
Here are the first three patterns in the sequence.



pattern number 1



pattern number 2



pattern number 3

(a) How many square tiles are needed to make pattern number 6?

.....
(2)

(b) How many circular tiles are needed to make pattern number 20?

.....
(2)

Derek says,

“When the pattern number is odd, an odd number of square tiles is needed to make the pattern.”

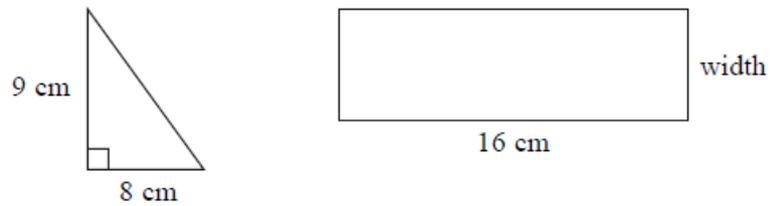
(c) Is Derek right?

You must give reasons for your answer.

(2)

5.

Here are a triangle and a rectangle.



The area of the rectangle is 6 times the area of the triangle.

Work out the width of the rectangle.

6.

5 tins of soup have a total weight of 1750 grams.

4 tins of soup and 3 packets of soup have a total weight of 1490 grams.

Work out the total weight of 3 tins of soup and 2 packets of soup.

7.

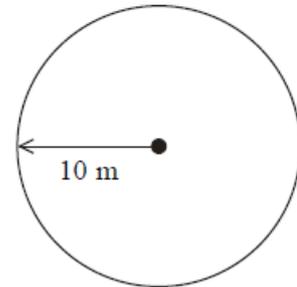
Balena has a garden in the shape of a circle of radius 10 m.

He is going to cover the garden with grass seed to make a lawn.

Grass seed is sold in boxes.

Each box of grass seed will cover 46 m^2 of garden.

Balena wants to cover all the garden with grass seed.



- (a) Work out an estimate for the number of boxes of grass seed Balena needs.
You must show your working.

- (b) Is your estimate for part (a) an underestimate or an overestimate?
Give a reason for your answer.

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.....

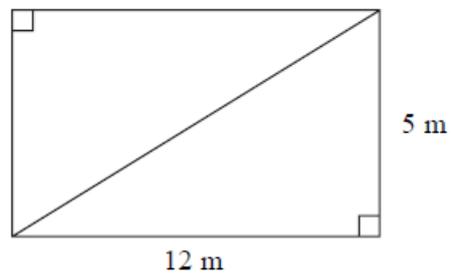
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(1)

8.

This rectangular frame is made from 5 straight pieces of metal.



The weight of the metal is 1.5 kg per metre.

Work out the total weight of the metal in the frame.

9.

The equation of the line L_1 is $y = 3x - 2$

The equation of the line L_2 is $3y - 9x + 5 = 0$

Show that these two lines are parallel.

10.

There are 495 coins in a bottle.

$\frac{1}{3}$ of the coins are £1 coins.

124 of the coins are 50p coins.

The rest of the coins are 20p coins.

Work out the total value of the 495 coins.