

## Wb 18.5.20

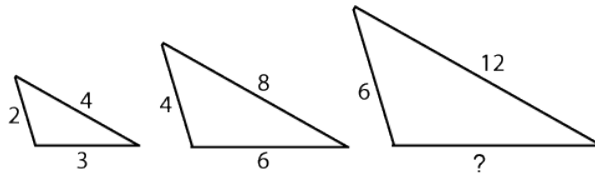
I thought I'd change things up this week so, this week you have a daily challenge to complete.

### Monday 18.5.20

#### Number the sides - ratio

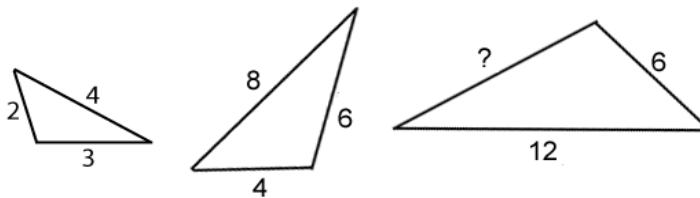
##### Set 1

The triangles in this set are 'similar':



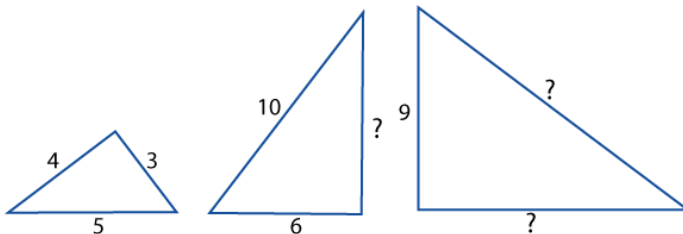
'Similar' means that the triangles are exactly the same shape, but not the same size. The sides are in the same ratio to each other. (Note that these triangles are not drawn to scale.)

What can you say about the length of the side of the third triangle which is marked with a question mark? Of course the triangles could be different ways up, too:



**Hint:** For set 2, it might help to draw the triangles so that they sit in the same direction!

##### Set 2



### Tuesday 19.5.20

#### Nutty Mixture - ratio

Rachel has a bag of nuts.

For every cashew nut in the bag, there are two peanuts.

There are 8 cashews in Rachel's bag. How many peanuts are there?

Marianne also has a bag of nuts.

In Marianne's bag, for every two cashew nuts, there are three peanuts.

Marianne's bag contains 12 peanuts in total. How many cashews are in her bag?

Rachel and Marianne decide to mix their bags of nuts together.

What is the ratio of cashew nuts to peanuts in the mix?



**Wednesday 20.5.20**  
**Flags – angles**



Pick a flag and investigate some of the following:-

What shapes can you see in it? Can you describe them and their angles?

Does the flag have any lines of reflective symmetry, if so how many lines?

Can you find any pairs of parallel lines? If so, mark them on your flag.

Are there any lines perpendicular to one another?

Can you find a way to classify the shapes in your flag?

Now try with another flag.

**Thursday 21.5.20**  
**Numerically equal - area and perimeter**

I want to draw a square in which the perimeter is equal to the area.  
What size square will I need to draw?



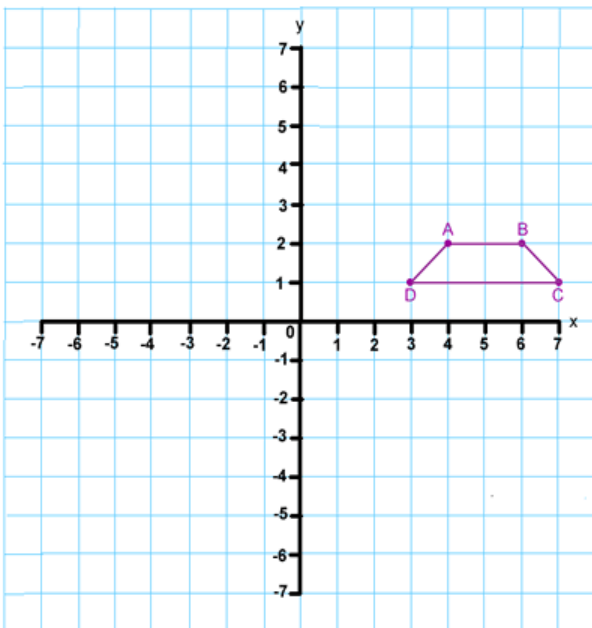
I want to draw a rectangle, that is twice as long as it is wide, in the perimeter is equal to the area.  
What size rectangle will I need to draw?



**Hint: the size of sides in both questions is less than 10m!**

**Friday 22.5.20 – Coordinates**

Here is a set of axes with one shape drawn in the first quadrant:



What is the shape called? What are the coordinates of A, B, C and D?

Translate (or move) the shape 3 squares left and 4 squares up. What are its new coordinates?

Compare these with the original coordinates. What do you notice?

Start again with the original shape. This time, reflect it in the x axis (the fourth quadrant, below). What are its new coordinates now?

What do you see when you compare these to the original coordinates?

Can you predict what the new coordinates would be if you reflected these in the y axis (second quadrant, left).