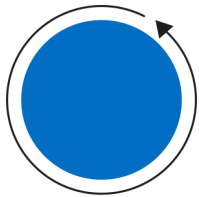


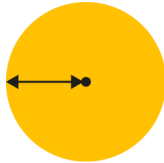


### Calculating with circles

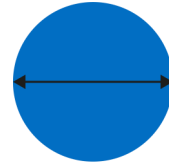
There are three key parts of a circle:



circumference



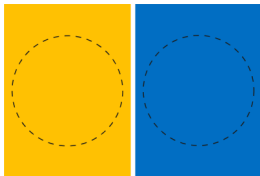
radius



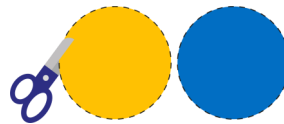
diameter

In this activity, you will make the link between the radius and the diameter. Before you start the activity, mark and cut out two circles on two different coloured pieces of paper and fold one of the circles in half as shown.

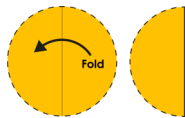
Step 1



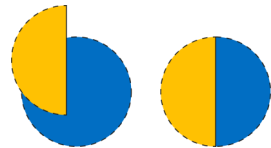
Step 2



Step 3



Step 4

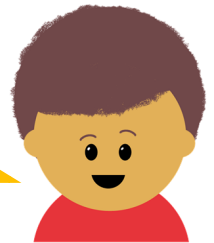


### Let's do this!



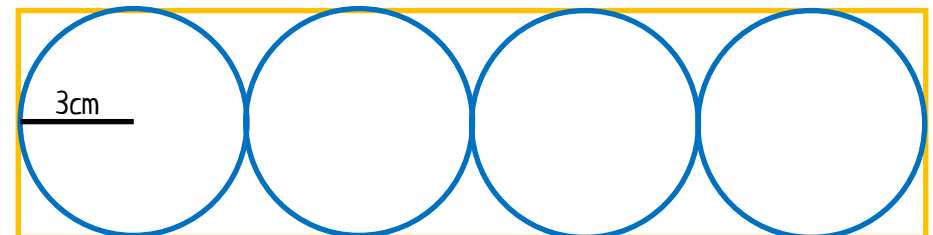
When you place your folded circle onto the unfolded circle, what do you notice?

If the radius is \_\_\_\_ \_\_\_\_, what is the diameter?  
If the diameter is \_\_\_\_ \_\_\_\_, what is the radius?



### Challenge

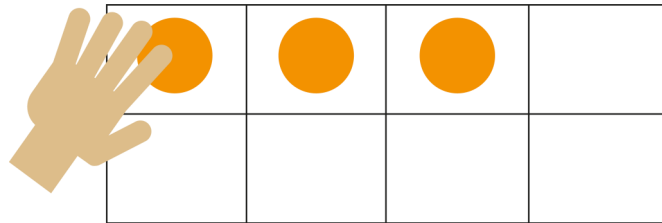
Can you use the circle's radius to calculate the rectangle's perimeter?





### Represent it, divide it!

For this activity, you will need some fraction frames and counters. Represent any fractions (less than a whole) and find their equivalent decimals.



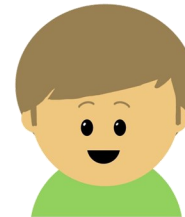
In this example, there are 3 counters and there are 8 squares in total. This represents the fraction three eighths.

We can convert three eighths to a decimal using short division:

	0	.	3	7	5
8	3	.	<sup>3</sup> 0	<sup>6</sup> 0	<sup>4</sup> 0

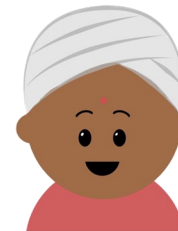
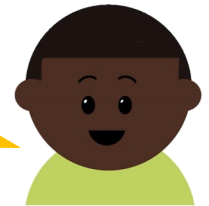
Three eighths is equivalent to 0.375

### Let's do this!



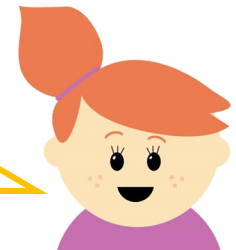
How do you set up your short division to divide the fraction into an equivalent decimal?

When using short division, why do we put a decimal point? Why do we add place holders?



If the number continues past 3 decimal places or the decimal recurs, how can you round it off?

If you convert two fractions consecutively (e.g. three eighths and four eighths) can you predict the following fraction's decimal?





# YR6 Home Learning Activities – Maths Set 3





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# YR6 Home Learning Activities – Maths Set 3


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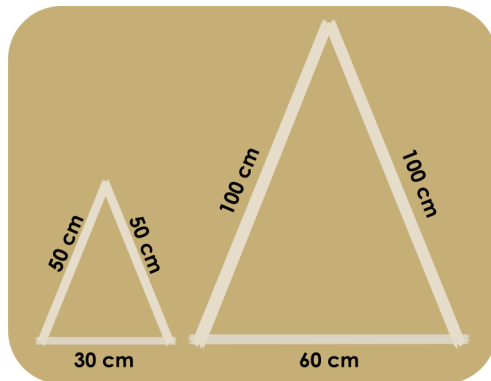


## Scale it!

The enlargement of a shape is dependent upon a scale factor.  
Scaling ensures that the shape stays in proportion.

A scale factor can be a whole number like 3. This means that all of the shape's dimensions must be three times their original size.

A scale factor can also be a fraction less than one. For example, a scale factor of a half would mean that a shape's dimensions must be half their original size.



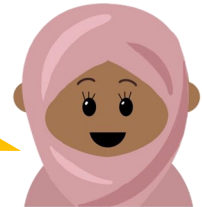
In the example, the isosceles triangle has been scaled by a scale factor of 2.  
The side lengths and base are two times their original dimensions.

## Let's do this!

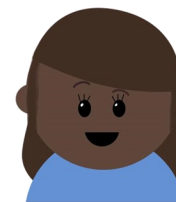


Using masking tape and a tape measure – or a pencil, ruler and paper – create a shape to scale.

Decide upon a scale factor and scale the shape.



How can you ensure that the new dimensions are accurate?



Can you scale a shape by a decimal scale factor?

