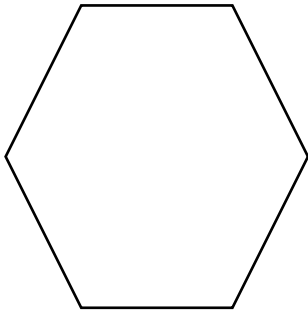Lesson 1 – measuring perimeter
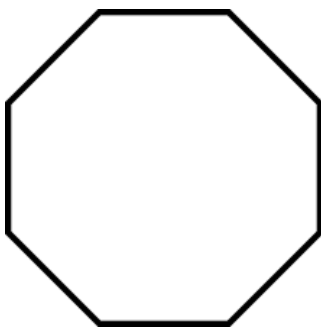
Challenge 1 Part 1

Here is a regular hexagon.

For each of the lengths of sides below, what would the perimeter be?

a) Side = 4cm

b) Side = 6cm

c) Side = 7cm

Challenge 1 part 2
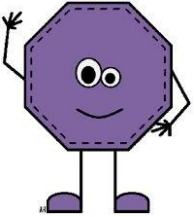
Here is a regular octagon.

For each of the lengths of sides below, what would the perimeter be?

a) Side = 8cm

b) Side = 9cm

c) Side = 12cm

Challenge 2

Olly Octagon has one side that is **15cm.**

Olly says that the perimeter of his octagon face is **135cm.**

Has Olly worked out the perimeter of his octagon face correctly?

Prove and explain your thinking.

Challenge 3

For each of the shapes below, you have been given the **perimeter.** Calculate the size of **one side**. Show all of your workings out in your books – I want to see how you got the answer.

a) A regular **nonagon** has a perimeter of **117cm**. What is the size of one side?
b) A regular **septagon** has a perimeter of **126cm**. What is the size of one side?
c) A regular **decagon** has a perimeter of **140cm**. What is the size of one side?
d) A regular **octagon** has a perimeter of **152cm**. What is the size of one side?