

Summer Term Maths Year 10

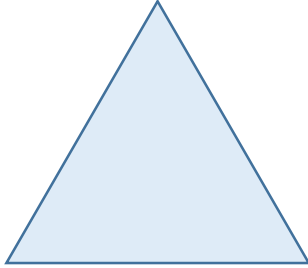
Regular Polygons

Day
3

Week 3

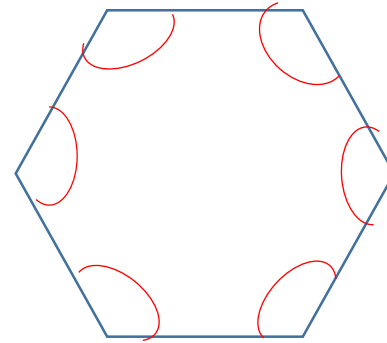
1 (a) What is the minimum number of sides that a polygon has? **Three**

(b) What is the special name given to a regular triangle? **Equilateral**



(c) What is the size of each of the angles in a regular triangle?
How did you know? **$180 \div 3 = 60^\circ$**

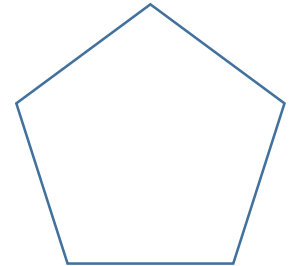
2 Here is a regular hexagon.



Mark on all of the interior angles of the shape.

3 Here is a regular pentagon.

How can you work out the size of each interior angle by first dividing the shape into triangles? **3 multiplied by 180 then divide by 5**



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4 Complete the table to show the size of the interior angle of the regular shapes.

Number of sides	Sum of interior angles	Size of each interior angle
3	180	$180 \div 3 = 60^\circ$
4	360	$360 \div 4 = 90^\circ$
5	540	$540 \div 5 = 108^\circ$
6	720°	120°
8	1080°	135°
9	1260°	140°
10	1440°	144°
12	1800°	150°

What patterns did you notice?

5 Each shape is made up of regular polygons. Find the labelled angles.

