



Angles in Polygons Exam Practice

Q1. A regular polygon has an exterior angle of size 10° .

Work out the total number of sides the polygon has.

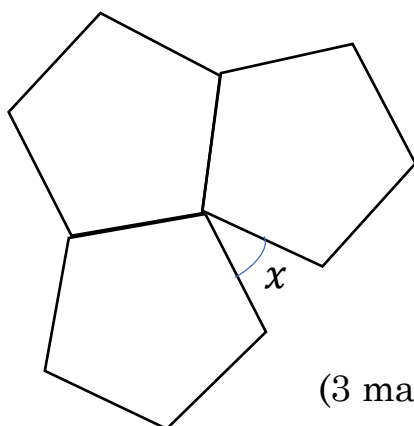
(2 marks)

Q2. Mike claims that a regular polygon has an interior angle of size 72° .

Could he be correct? You must explain your choice.

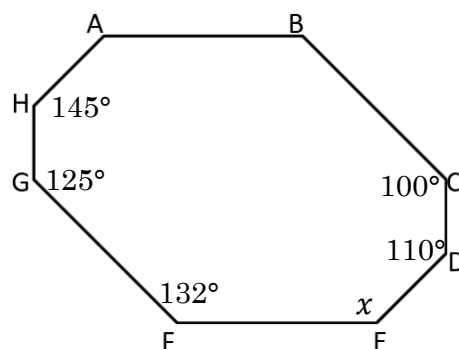
(2 marks)

Q3. The diagram shows 3 identical polygons. Work out angle x



(3 marks)

Q4. The sizes of angle A and angle B are in the ratio 6 : 5. Work out angle x , if x is 30° less than A.

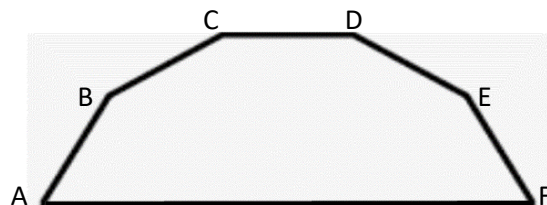


(4 marks)

Q5. Richard draws a polygon. The sum of all the interior angles is 8640° . Work out the number of sides of the polygon.

(3 marks)

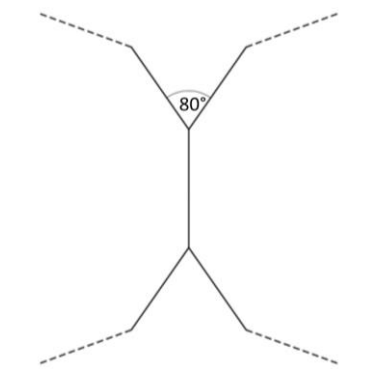
Q6. AB, BC, CD, DE and EF are sides of a regular 12-sided shape. Work out the size of angle EFA.



(4 marks)

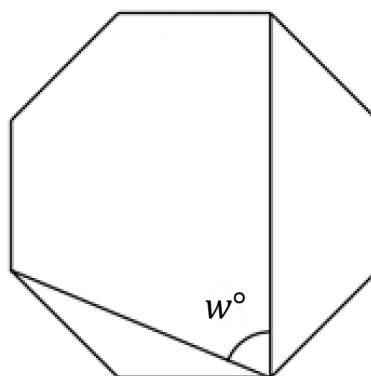


Q7. The two polygons shown below are congruent. Work out the number of sides on each polygon.



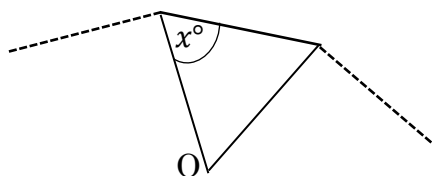
(3 marks)

Q8. The diagram shows a regular octagon. Find the angle w .



(3 marks)

Q9. Below is part of n -sided regular polygon, where O is the centre.

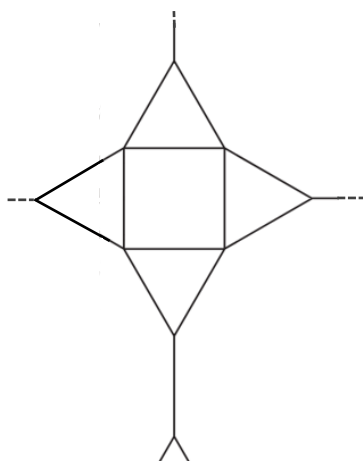


Prove that angle x is of the form $a - \frac{b}{n}$ where a, b are constants to be found. (3 marks)

Q10. In a regular polygon, the size of each interior angle to each exterior angle is in the ratio 14:1. Find the number of sides of the polygon.

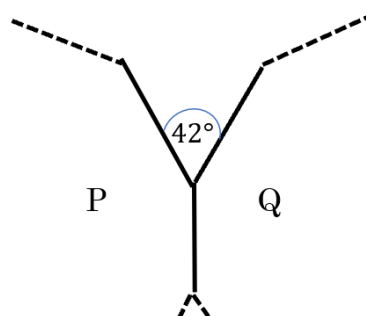
(3 marks)

Q11. A tessellation is made of equilateral triangles, squares and regular n -sided polygons. Find n .



(3 marks)

Q12. Below, P and Q are 2 regular polygons. P has 5 more sides than Q . Find the number of sides in each polygon.



(5 marks)