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.

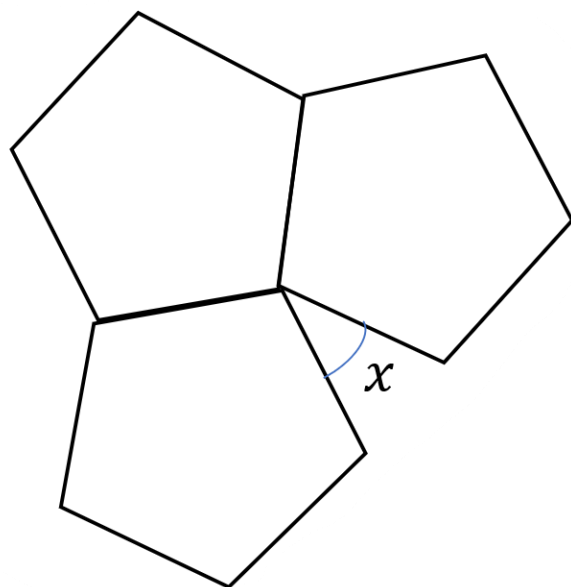Answer:_____

(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.
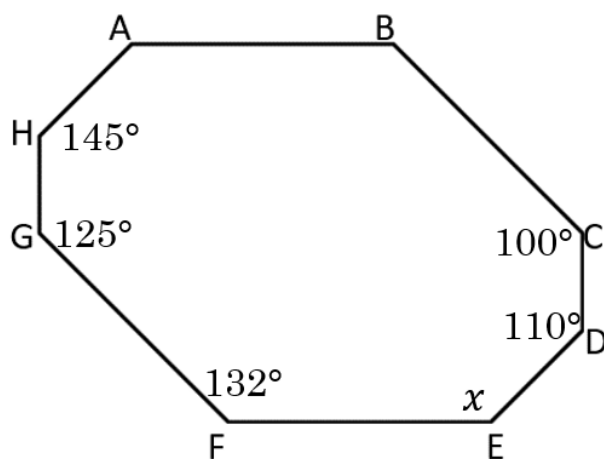
Answer:_____

(2 marks)

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

Answer:_____

(3 marks)

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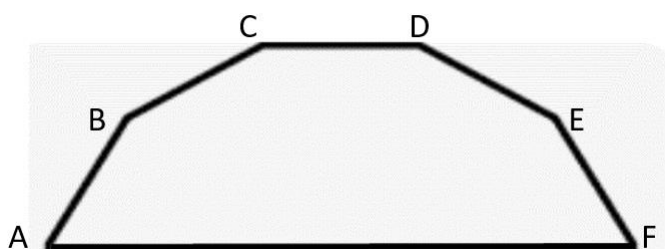

Answer:_____

(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.
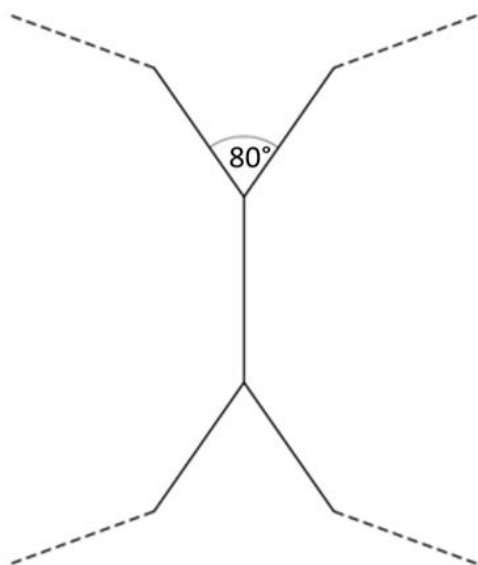
Answer:_____
(3 marks)

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

Answer:_____
(4 marks)

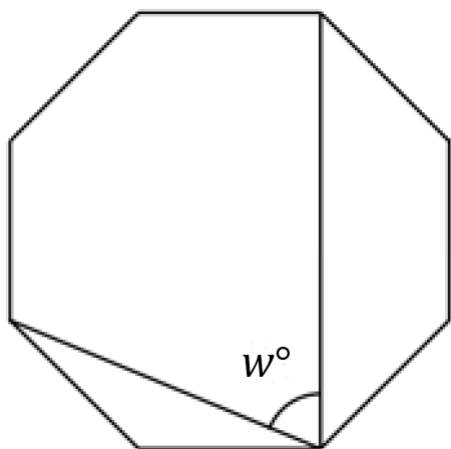Q7. The two polygons shown below are congruent. Work out the number of sides on each polygon.
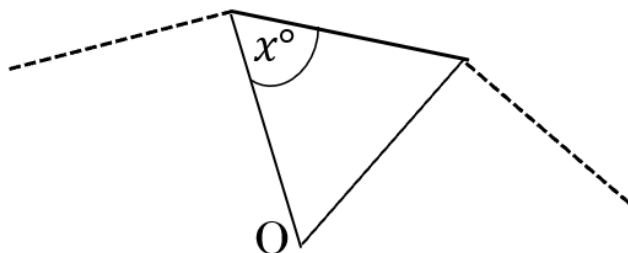

Answer:_____

(4 marks)

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

Answer:_____

(3 marks)

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

Prove that angle x is of the form $a - \dfrac{b}{n}$ where a, b are constants to be found.
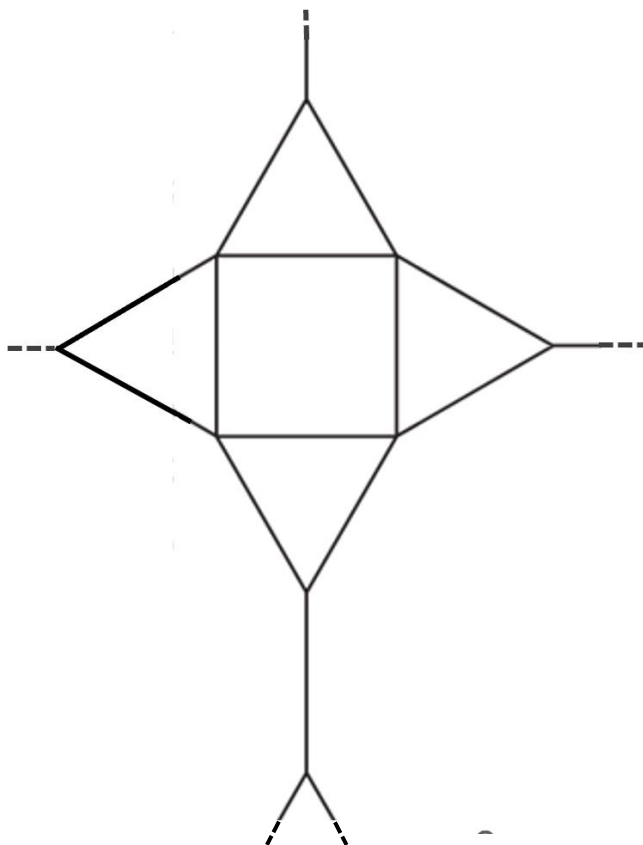
Answer:_____

<div align="right">(3 marks)</div>

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.
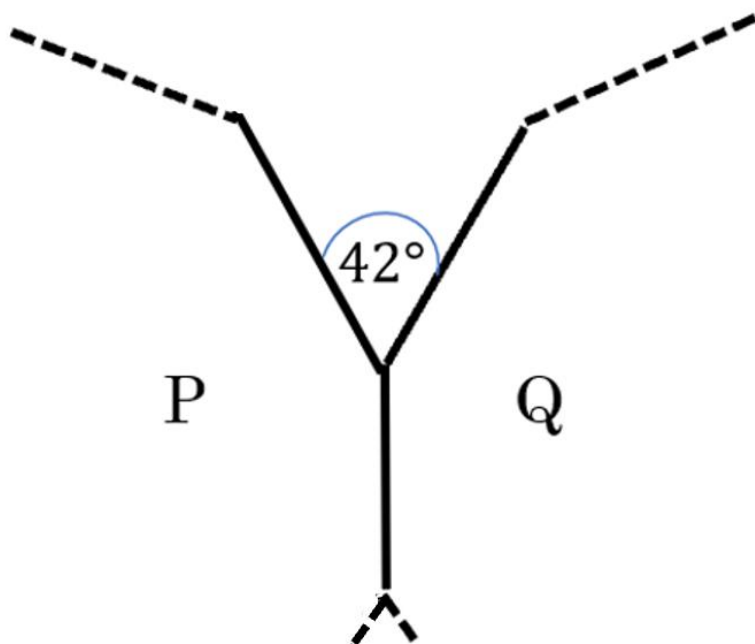
Answer:_____

<div align="right">(3 marks)</div>

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

Answer:_____
(4 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.

Answer:_____

(5 marks)