Angles in Regular Polygons

Calculate the sum of the interior angles of a polygon with:

(a) 16 sides   (b) 11 sides

(c) 20 sides   (d) 14 sides

Calculate the size of the exterior and interior angles of a polygon with:

(a) 15 sides   (b) 12 sides

(c) 18 sides   (d) 36 sides

Calculate the number of sides of a polygon whose exterior angle is:

(a) 12°   (b) 20°

(c) 18°   (d) 40°

Calculate the number of sides of a polygon whose interior angle is:

(a) 120°   (b) 162°

(c) 160°   (d) 174°

(a) Explain why it is not possible to have a polygon with an exterior angle of 23°.

(b) Explain why it is not possible to have a polygon with an interior angle of 143°.

(a) Find the name of the regular polygon whose interior angle is three times that of its exterior angle.

(b) The interior angle of a regular polygon is 11 times its exterior angle. How many sides does the regular polygon have?