Interior Angles in Regular Polygons

Match the number of sides to the name of the polygon.

Octagon	5
Pentagon	6
Heptagon	7
Hexagon	8
Decagon	9
Nonagon	10

Pentagon – 5
Hexagon – 6
Heptagon – 7
Octagon – 8
Nonagon – 9
Decagon – 10

(a) Find the sum of the interior angles in a regular pentagon.

(b) Find the sum of the interior angles in a regular octagon.

(c) Find the sum of the interior angles in a regular decagon.

(d) Find the sum of the interior angles in a 12-sided regular polygon.

(a) $540°$
(b) $1080°$
(c) $1440°$
(d) $1800°$

(a) The sum of the interior angles in a regular hexagon is $720°$. Find the size of one interior angle in a regular hexagon.

(b) Find the size of one interior angle in a regular nonagon.

(c) Find the size of one interior angle in a regular 15-sided polygon.

(d) Find the size of one interior angle in a regular 20-sided polygon.

(a) $120°$
(b) $140°$
(c) $156°$
(d) $162°$

(a) A regular polygon has interior angles which sum to $900°$. How many sides does the polygon have?

(b) A regular polygon has interior angles which sum to $1980°$. How many sides does the polygon have?

(c) A regular polygon has interior angles which sum to $2880°$. How many sides does the polygon have?

(a) 7
(b) 13
(c) 18