# Answer Key - Interior and Exterior Angles of Regular Polygons

1) (5 - 2) x 180 = 540 degrees.

2) Exterior = 360 ÷ 6 = 60, Interior = 180 - 60 = 120 degrees.

3) Exterior = 360 ÷ 8 = 45 degrees.

4) 360 ÷ 60 = 6 sides (hexagon).

5) Exterior = 180 - 140 = 40, n = 360 ÷ 40 = 9 sides (nonagon).

6) Exterior = 360 ÷ 18 = 20, Interior = 180 - 20 = 160 degrees.

7) Because one full turn around a point is 360, and exterior angles together make one full turn.

8) Let exterior = x, interior = 3x, so x + 3x = 180, 4x = 180, x = 45, n = 360 ÷ 45 = 8 sides (octagon).

9) Decagon exterior = 36, Dodecagon = 30, between them is about 11 sides.

10) Exterior = 180 - 120 = 60, n = 360 ÷ 60 = 6, Regular Hexagon.