Multiple choice questions - Angles in polygons

Year: Year 9 · 10

Question 1 The sum of the interior angles of a heptagon (7 sides) is:

- ◯ **A.** 900°
- ◯ **B.** 1080°
- ◯ **C.** 720°
- ◯ **D.** 630°

Question 2 The exterior angle of a regular pentagon is:

- ◯ **A.** 108°
- ◯ **B.** 72°
- ◯ **C.** 60°
- ◯ **D.** 36°

Question 3 A regular polygon has an exterior angle of 24°. The number of sides is:

- ◯ **A.** 12
- ◯ **B.** 15
- ◯ **C.** 18
- ◯ **D.** 24

Question 4 The interior angle of a regular decagon is:

- ◯ **A.** 144°
- ◯ **B.** 36°
- ◯ **C.** 135°
- ◯ **D.** 150°

Question 5 The exterior angles of any polygon add up to:

- ◯ **A.** 180°
- ◯ **B.** 360°
- ◯ **C.** 540°
- ◯ **D.** depends on sides

Question 6 Interior angle + exterior angle at a vertex =

- ◯ **A.** 90°
- ◯ **B.** 180°
- ◯ **C.** 360°

◯ **D.** 270°

Question 7 A polygon's interior angles sum to 1260°. It has:

◯ **A.** 7 sides
◯ **B.** 8 sides
◯ **C.** 9 sides
◯ **D.** 10 sides

Question 8 Which regular polygon has an interior angle of 90°?

◯ **A.** triangle
◯ **B.** square
◯ **C.** pentagon
◯ **D.** hexagon

Question 9 The sum of interior angles of a quadrilateral is:

◯ **A.** 180°
◯ **B.** 270°
◯ **C.** 360°
◯ **D.** 720°

Question 10 The interior angle of a regular 18-sided polygon is:

◯ **A.** 160°
◯ **B.** 162°
◯ **C.** 170°
◯ **D.** 20°

Answer grid - Angles in polygons

Year: Year 9

Question	Answer	Explanation
1	**A**	5 × 180.
2	**B**	360 ÷ 5.
3	**B**	360 ÷ 24.
4	**A**	180 - 36.
5	**B**	A full turn.
6	**B**	Angles on a straight line.
7	**C**	1260 ÷ 180 = 7 = n - 2.
8	**B**	Exterior 90°, n = 4.
9	**C**	2 triangles.
10	**A**	Exterior 20°, interior 160°.