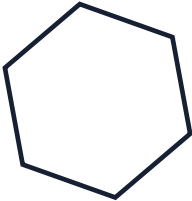


Angles in Regular Polygons

Find one interior angle, one exterior angle, and the sum of the interior angles. Round individual angles to the nearest tenth when needed.

1. Find one interior angle, one exterior angle, and the sum of the interior angles.

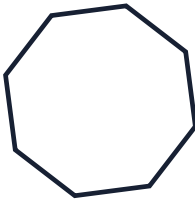


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

2. Find one interior angle, one exterior angle, and the sum of the interior angles.

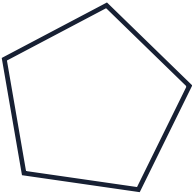


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

3. Find one interior angle, one exterior angle, and the sum of the interior angles.

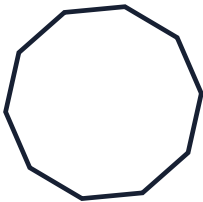


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

4. Find one interior angle, one exterior angle, and the sum of the interior angles.

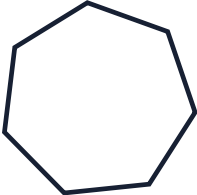


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

5. Find one interior angle, one exterior angle, and the sum of the interior angles.

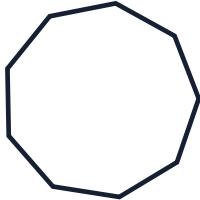


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

6. Find one interior angle, one exterior angle, and the sum of the interior angles.



Interior angle: _____

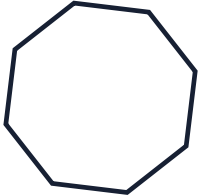
Exterior angle: _____

Interior-angle sum: _____

Angles in Regular Polygons

Find one interior angle, one exterior angle, and the sum of the interior angles. Round individual angles to the nearest tenth when needed.

7. Find one interior angle, one exterior angle, and the sum of the interior angles.

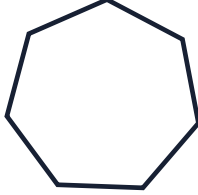


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

8. Find one interior angle, one exterior angle, and the sum of the interior angles.

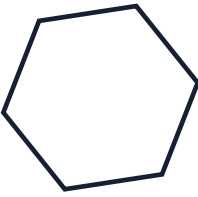


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

9. Find one interior angle, one exterior angle, and the sum of the interior angles.

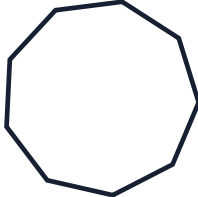


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

10. Find one interior angle, one exterior angle, and the sum of the interior angles.

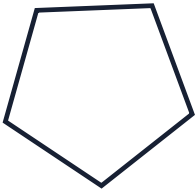


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

11. Find one interior angle, one exterior angle, and the sum of the interior angles.

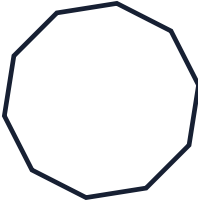


Interior angle: _____

Exterior angle: _____

Interior-angle sum: _____

12. Find one interior angle, one exterior angle, and the sum of the interior angles.



Interior angle: _____

Exterior angle: _____

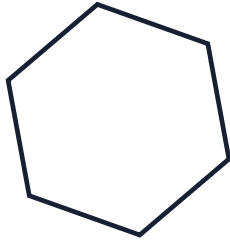
Interior-angle sum: _____

Angles in Regular Polygons

Worked Answer Key

Find one interior angle, one exterior angle, and the sum of the interior angles. Round individual angles to the nearest tenth when needed.

1. Find one interior angle, one exterior angle, and the sum of the interior angles.



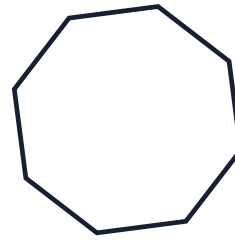
$$n = 6. \text{ Sum} = 180(n - 2) = 180(6 - 2) = 720 \text{ deg.}$$

$$\text{One interior angle} = 720/6 = 120 \text{ deg.}$$

$$\text{One exterior angle} = 360/6 = 60 \text{ deg.}$$

Answer: Interior 120 deg; exterior 60 deg; sum 720 deg

2. Find one interior angle, one exterior angle, and the sum of the interior angles.



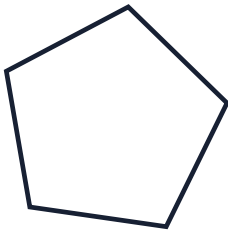
$$n = 8. \text{ Sum} = 180(n - 2) = 180(8 - 2) = 1080 \text{ deg.}$$

$$\text{One interior angle} = 1080/8 = 135 \text{ deg.}$$

$$\text{One exterior angle} = 360/8 = 45 \text{ deg.}$$

Answer: Interior 135 deg; exterior 45 deg; sum 1080 deg

3. Find one interior angle, one exterior angle, and the sum of the interior angles.



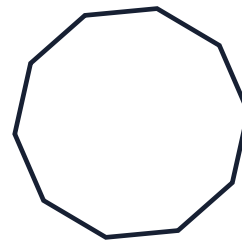
$$n = 5. \text{ Sum} = 180(n - 2) = 180(5 - 2) = 540 \text{ deg.}$$

$$\text{One interior angle} = 540/5 = 108 \text{ deg.}$$

$$\text{One exterior angle} = 360/5 = 72 \text{ deg.}$$

Answer: Interior 108 deg; exterior 72 deg; sum 540 deg

4. Find one interior angle, one exterior angle, and the sum of the interior angles.



$$n = 10. \text{ Sum} = 180(n - 2) = 180(10 - 2) = 1440 \text{ deg.}$$

$$\text{One interior angle} = 1440/10 = 144 \text{ deg.}$$

$$\text{One exterior angle} = 360/10 = 36 \text{ deg.}$$

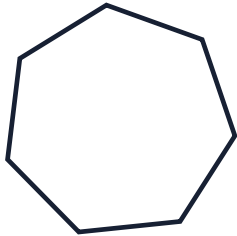
Answer: Interior 144 deg; exterior 36 deg; sum 1440 deg

Angles in Regular Polygons

Worked Answer Key

Find one interior angle, one exterior angle, and the sum of the interior angles. Round individual angles to the nearest tenth when needed.

5. Find one interior angle, one exterior angle, and the sum of the interior angles.



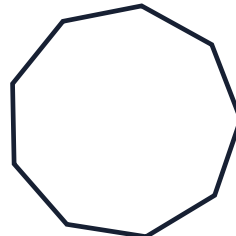
$$n = 7. \text{ Sum} = 180(n - 2) = 180(7 - 2) = 900 \text{ deg.}$$

$$\text{One interior angle} = 900/7 = 900/7 \text{ deg approximately } 128.6 \text{ deg.}$$

$$\text{One exterior angle} = 360/7 = 360/7 \text{ deg approximately } 51.4 \text{ deg.}$$

Answer: Interior 900/7 deg (approximately 128.6 deg); exterior 360/7 deg (approximately 51.4 deg); sum 900 deg

6. Find one interior angle, one exterior angle, and the sum of the interior angles.



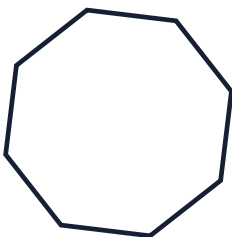
$$n = 9. \text{ Sum} = 180(n - 2) = 180(9 - 2) = 1260 \text{ deg.}$$

$$\text{One interior angle} = 1260/9 = 140 \text{ deg.}$$

$$\text{One exterior angle} = 360/9 = 40 \text{ deg.}$$

Answer: Interior 140 deg; exterior 40 deg; sum 1260 deg

7. Find one interior angle, one exterior angle, and the sum of the interior angles.



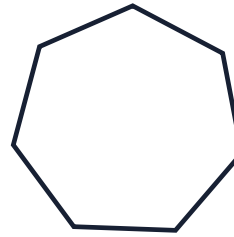
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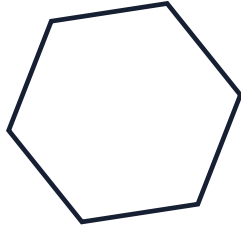
Answer: Interior 900/7 deg (approximately 128.6 deg); exterior 360/7 deg (approximately 51.4 deg); sum 900 deg

Angles in Regular Polygons

Worked Answer Key

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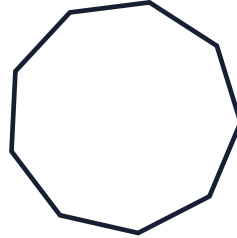
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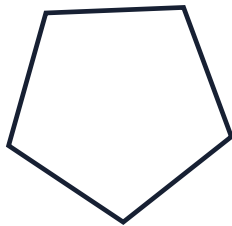
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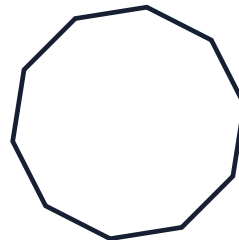
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