



# Practice Worksheet on Geometry

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Subject: Mathematics

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## Long Answer Questions

1. Describe the properties of an equilateral triangle.
2. Define an isosceles triangle and its characteristics.
3. Explain what distinguishes a scalene triangle from other types.
4. What is the defining feature of a right-angled triangle?
5. Describe the angles in an acute triangle.
6. Explain the key angle property of an obtuse triangle.
7. Can an equilateral triangle also be an acute triangle? Explain.

8. Can an isosceles triangle be of different types? Explain.

## Multiple Choice Questions

1. Which statement is true for an equilateral triangle?

- a) All sides are equal
- b) All angles are equal
- c) One angle is 90 degrees
- d) Two sides are equal

2. Which statement is true for an isosceles triangle?

- a) All sides are unequal
- b) At least two sides are equal
- c) One angle is greater than 90 degrees
- d) All angles are equal

3. Which statement is true for a scalene triangle?

- a) All sides are unequal
- b) All angles are equal
- c) One angle is 90 degrees
- d) Two sides are equal

4. Which statement is true for a right-angled triangle?

- a) One angle is less than 90 degrees
- b) All angles are greater than 90 degrees
- c) One angle is 90 degrees
- d) All angles are less than 90 degrees

5. Which statement is true for an acute triangle?

- a) All angles are less than 90 degrees
- b) One angle is greater than 90 degrees
- c) One angle is 90 degrees
- d) All angles are greater than 90 degrees

6. Which statement is true for an obtuse triangle?

- a) All angles are less than 90 degrees
- b) One angle is greater than 90 degrees
- c) One angle is 90 degrees
- d) All angles are equal

7. What type of triangle is an equilateral triangle?

- a) It can only be obtuse
- b) It is always acute
- c) It can be obtuse or right-angled
- d) It can be any type

8. What types of triangles can an isosceles triangle be?

- a) It can be acute, obtuse, or right-angled
- b) It is always acute
- c) It can only be obtuse
- d) It is always right-angled

# Answer Key

## Long Answer Questions - Expected Responses

1. Describe the properties of an equilateral triangle.

Expected Answer: An equilateral triangle has all sides of equal length and all angles measuring 60 degrees.

2. Define an isosceles triangle and its characteristics.

Expected Answer: An isosceles triangle has at least two sides of equal length and two equal angles.

3. Explain what distinguishes a scalene triangle from other types.

Expected Answer: A scalene triangle has all sides of different lengths and all angles of different measures.

4. What is the defining feature of a right-angled triangle?

Expected Answer: A right-angled triangle contains one angle that measures exactly 90 degrees.

5. Describe the angles in an acute triangle.

Expected Answer: Acute triangles possess three angles, each measuring less than 90 degrees.

6. Explain the key angle property of an obtuse triangle.

Expected Answer: Obtuse triangles have one angle greater than 90 degrees and less than 180 degrees.

7. Can an equilateral triangle also be an acute triangle? Explain.

Expected Answer: Equilateral triangles are always acute because each angle is 60 degrees.

8. Can an isosceles triangle be of different types? Explain.

Expected Answer: Isosceles triangles can be acute, obtuse, or right-angled depending on their angles.

## Multiple Choice Questions – Correct Answers

1. Which statement is true for an equilateral triangle?

Correct Answer: All sides are equal

2. Which statement is true for an isosceles triangle?

Correct Answer: At least two sides are equal

3. Which statement is true for a scalene triangle?

Correct Answer: All sides are unequal

4. Which statement is true for a right-angled triangle?

Correct Answer: One angle is 90 degrees

5. Which statement is true for an acute triangle?

Correct Answer: All angles are less than 90 degrees

6. Which statement is true for an obtuse triangle?

Correct Answer: One angle is greater than 90 degrees

7. What type of triangle is an equilateral triangle?

Correct Answer: It is always acute

8. What types of triangles can an isosceles triangle be?

Correct Answer: It can be acute, obtuse, or right-angled