



# TestGenie Question Paper

Class: 5

Subject: Maths

Name: \_\_\_\_\_

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## Class 5 Mathematics Question Paper

**# Subject: Shapes and Angles**

**# Total Questions: 36**

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Word Problems:

1. A rectangle has a length of 12 cm and a width of 5 cm. What is the perimeter of the rectangle?
2. If three angles of a quadrilateral are  $85^\circ$ ,  $90^\circ$ , and  $75^\circ$ , what is the measure of the fourth angle?
3. Sarah drew a triangle with angles measuring  $40^\circ$  and  $70^\circ$ . What is the measure of the third angle?
4. A square garden has a side length of 8 m. How much fencing is needed to surround it?
5. If a right angle is  $90^\circ$ , what is the measure of an angle that is three times that angle?
6. Tom has 6 triangular pieces of paper, each with an interior angle measuring  $60^\circ$ . What type of triangles does he have?

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Multiple Choice Questions (MCQs):

1. What is the sum of the angles in a triangle?
  - a)  $180^\circ$
  - b)  $360^\circ$
  - c)  $90^\circ$
  - d)  $270^\circ$
2. How many sides does a hexagon have?
  - a) 5
  - b) 6
  - c) 7

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d) 8

3. What do you call an angle larger than  $90^\circ$  but less than  $180^\circ$  ?

- a) Acute Angle
- b) Right Angle
- c) Obtuse Angle
- d) Straight Angle

4. Which of the following shapes has all sides equal and all angles equal?

- a) Rectangle
- b) Rhombus
- c) Square
- d) Trapezium

5. If a triangle has sides measuring 3 cm, 4 cm, and 5 cm, what type of triangle is it?

- a) Equilateral
- b) Isosceles
- c) Scalene
- d) Right

6. A circle has a radius of 7 cm. What is its diameter?

- a) 14 cm
- b) 21 cm
- c) 7 cm
- d) 28 cm

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Fill in the Blanks:

1. A triangle with all sides of different lengths is called a \_\_\_\_\_ triangle.
2. The measure of a straight angle is \_\_\_\_\_ degrees.
3. The sum of the interior angles of a quadrilateral is \_\_\_\_\_ degrees.
4. A line segment that connects two points on a curve is called a \_\_\_\_\_.
5. A triangle with one angle measuring more than  $90^\circ$  is called an \_\_\_\_\_ triangle.
6. The point where two lines intersect is known as a \_\_\_\_\_.

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True or False:

1. An acute angle measures more than 90 degrees.
2. A rectangle has two pairs of equal sides.
3. An equilateral triangle has angles that each measure 60 degrees.
4. The perimeter of a square is calculated by adding the lengths of all four sides.
5. The symbol for a right angle is a small square.
6. A trapezoid has at least one pair of parallel sides.

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Match the Following:

Column A	Column B	
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1. Circle	A. $360^\circ$	
2. Triangle	B. 4 sides	
3. Square	C. $180^\circ$	
4. Rectangle	D. 4 equal angles	
5. Quadrilateral	E. 3 sides	
6. Full angle	F. 2 pairs of equal sides	

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Story-Based Problems:

1. Jamie is making a quilt shaped like a hexagon. If each side of the hexagon is 5 cm long, what will be the total length of the border she needs for the quilt?
2. Alex measures an angle using a protractor and finds it is  $120^\circ$ . If he wants a complement angle, what is that angle's measure?
3. Mia has a piece of string that is 30 cm long. She wants to cut it into equal lengths to form a square. How long will each side of the square be?
4. In a school project, students have to measure the angles of a triangle. If they find two angles measuring  $50^\circ$  and  $60^\circ$ , what is the measure of the third angle?
5. If the length of one side of a square is doubled, how does the area change?

6. Carlo has a triangular garden with sides measuring 6 m, 8 m, and 10 m. What type of triangle is he working with?

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End of Question Paper



# TestGenie Answer Key

Class: 5

Subject: Maths

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## Answer Key for Class 5 Mathematics Question Paper - Shapes and Angles

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### # Word Problems:

1. A rectangle has a length of 12 cm and a width of 5 cm. What is the perimeter of the rectangle?

Answer: The formula for the perimeter of a rectangle is:

$$[ P = 2(\text{length} + \text{width}) ]$$

$$[ P = 2(12 \text{ cm} + 5 \text{ cm}) = 2(17 \text{ cm}) = 34 \text{ cm} ]$$

So, the perimeter is 34 cm.

2. If three angles of a quadrilateral are  $85^\circ$ ,  $90^\circ$ , and  $75^\circ$ , what is the measure of the fourth angle?

Answer: The sum of the angles in a quadrilateral is  $360^\circ$ .

Let the fourth angle be  $(x)$ .

Thus,

$$[ x + 85^\circ + 90^\circ + 75^\circ = 360^\circ ]$$

$$[ x + 250^\circ = 360^\circ ]$$

$$[ x = 360^\circ - 250^\circ ]$$

$$[ x = 110^\circ ]$$

The measure of the fourth angle is  $110^\circ$ .

3. Sarah drew a triangle with angles measuring  $40^\circ$  and  $70^\circ$ . What is the measure of the third angle?

Answer: The sum of the angles in a triangle is  $180^\circ$ .

Let the third angle be  $(x)$ .

$$[ 40^\circ + 70^\circ + x = 180^\circ ]$$

$$[ 110^\circ + x = 180^\circ ]$$

$$[ x = 180^\circ - 110^\circ ]$$

$$[ x = 70^\circ ]$$

The measure of the third angle is  $70^\circ$  .

4. A square garden has a side length of 8 m. How much fencing is needed to surround it?

Answer: The formula for the perimeter of a square is:

$$P = 4 \times \text{side}$$

$$P = 4 \times 8 \text{ m} = 32 \text{ m}$$

So, 32 m of fencing is needed.

5. If a right angle is  $90^\circ$  , what is the measure of an angle that is three times that angle?

Answer: If the angle is three times a right angle:

$$3 \times 90^\circ = 270^\circ$$

So, the measure of that angle is  $270^\circ$  .

6. Tom has 6 triangular pieces of paper, each with an interior angle measuring  $60^\circ$  . What type of triangles does he have?

Answer: A triangle with all angles measuring  $60^\circ$  is an equilateral triangle. Thus, Tom has equilateral triangles.

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### # Multiple Choice Questions (MCQs):

1. What is the sum of the angles in a triangle?

Answer: a)  $180^\circ$

2. How many sides does a hexagon have?

Answer: b) 6

3. What do you call an angle larger than  $90^\circ$  but less than  $180^\circ$  ?

Answer: c) Obtuse Angle

4. Which of the following shapes has all sides equal and all angles equal?

Answer: c) Square

5. If a triangle has sides measuring 3 cm, 4 cm, and 5 cm, what type of triangle is it?

Answer: d) Right (since  $3^2 + 4^2 = 5^2$ ) which follows the Pythagorean theorem)

6. A circle has a radius of 7 cm. What is its diameter?

Answer: a) 14 cm (Diameter =  $2 \times$  Radius)

*The answer key is generated by testgenie.ai and should be reviewed for precision.*

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**# Fill in the Blanks:**

1. A triangle with all sides of different lengths is called a scalene triangle.
2. The measure of a straight angle is 180 degrees.
3. The sum of the interior angles of a quadrilateral is 360 degrees.
4. A line segment that connects two points on a curve is called a chord.
5. A triangle with one angle measuring more than 90° is called an obtuse triangle.
6. The point where two lines intersect is known as a vertex/inters.

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**# True or False:**

1. An acute angle measures more than 90 degrees.  
Answer: False (An acute angle measures less than 90 degrees).
2. A rectangle has two pairs of equal sides.  
Answer: True
3. An equilateral triangle has angles that each measure 60 degrees.  
Answer: True
4. The perimeter of a square is calculated by adding the lengths of all four sides.  
Answer: True
5. The symbol for a right angle is a small square.  
Answer: True
6. A trapezoid has at least one pair of parallel sides.  
Answer: True

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**# Match the Following:**

Column A	Column B	
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*The answer key is generated by testgenie.ai and should be reviewed for precision.*

1. Circle	A. 360°	
2. Triangle	E. 3 sides	
3. Square	D. 4 equal angles	
4. Rectangle	F. 2 pairs of equal sides	
5. Quadrilateral	B. 4 sides	
6. Full angle	C. 180°	

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## # Story-Based Problems:

1. Jamie is making a quilt shaped like a hexagon. If each side of the hexagon is 5 cm long, what will be the total length of the border she needs for the quilt?

Answer: The perimeter of a hexagon can be calculated as:

$$[ P = 6 \times \text{side} = 6 \times 5 \text{ cm} = 30 \text{ cm} ]$$

So, she needs 30 cm of border.

2. Alex measures an angle using a protractor and finds it is  $120^\circ$ . If he wants a complement angle, what is that angle's measure?

Answer: Complementary angles sum up to  $90^\circ$ .

Complement angle =  $90^\circ - 120^\circ = -30^\circ$  (This means there is no complement angle since  $120^\circ$  is greater than  $90^\circ$ ).

3. Mia has a piece of string that is 30 cm long. She wants to cut it into equal lengths to form a square. How long will each side of the square be?

Answer: Let the side length be  $(s)$ . The perimeter is 30 cm:

$$[ 4s = 30 ]$$

$$[ s = 30/4 = 7.5 \text{ cm} ]$$

Each side of the square will be 7.5 cm long.

4. In a school project, students have to measure the angles of a triangle. If they find two angles measuring  $50^\circ$  and  $60^\circ$ , what is the measure of the third angle?

Answer: The sum of angles in a triangle is  $180^\circ$ .

Let the third angle be  $(x)$ .

$$[ 50^\circ + 60^\circ + x = 180^\circ ]$$

$$[ 110^\circ + x = 180^\circ ]$$

$$[ x = 180^\circ - 110^\circ = 70^\circ ]$$

*The answer key is generated by testgenie.ai and should be reviewed for precision.*



The measure of the third angle is  $70^\circ$ .

5. If the length of one side of a square is doubled, how does the area change?

Answer: The area of a square is calculated as  $(A = \text{side}^2)$ .

If the side length is doubled, the new area becomes:

$(A = (2 \times \text{side})^2 = 4 \times \text{side}^2)$ .

So, the area becomes four times larger.

6. Carlo has a triangular garden with sides measuring 6 m, 8 m, and 10 m. What type of triangle is he working with?

Answer: Since  $(6^2 + 8^2 = 36 + 64 = 100 = 10^2)$  follows the Pythagorean theorem, this triangle is a right triangle.

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This answer key represents thorough explanations and calculations to ensure clarity and understanding for Class 5 students on the topics of shapes and angles.