

AREA FORMULA FOR QUADRILATERALS

A polygon with a total of four edges and sides is referred to as a quadrilateral. Quadrilaterals come in a variety of shapes like squares, rectangles, parallelograms, and trapeziums. Each of these different kinds of quadrilaterals has unique properties that are specific to them.







Q1: What formula is used to compute the area of a quadrilateral?

A: A = s^2 B: A = 0.5 * a * b * $sin(\theta)$ C: A = 0.5 * d1 * d2 * $sin(\theta)$ D: A = π * r^2

Q2: In the quadrilateral area formula A = $0.5 \times d1 \times d2 \times sin(\theta)$, what do 'd1' and 'd2' represent?

A: Both are side lengths

B: 'd1' is the diagonal length, and 'd2' is the side length

C: 'd1' is one diagonal length, and 'd2' is the other diagonal length

D: Both are angle measurements

Q3: If a quadrilateral has an area of 72 square units and one diagonal is 12 units while the included angle is 45 degrees, what is the length of the other diagonal?

A: 10

B: 20

C: 16

D: 24

Q4: What do you call a quadrilateral?

A: A polygon with four sides

- B: A polygon with three sides
- C: A polygon with ten sides
- D: A polygon with six sides

Q5: The interior angles in a quadrilateral sum up to:

A: 180 degrees

B: 360 degrees

C: 120 degrees

D: 270 degrees



Q6: The opposite sides in a parallelogram are:

- A: Perpendicular
- **B: Intersecting**
- C: Non-parallel
- D: Parallel

Q7: In a rectangle, opposite sides are:

- A: Equal in length
- B: Unequal in length
- C: Complementary
- D: None of the above

Q8: The area of a square is represented as:

A: ½ * b * h B: s^2 C: b * h D: s^4

Q9: The trapezoid area can be found using:

A: b1 * b2 B: b1 + b2 / 2 * h C: ½ * b1 * b2 D: B1 * b2

Q10: The rectangle area can be found using:

A: I * b B: ½ * I * b C: I+b/2 D: 2I * 2b





Answers

- **Q1:** C A = $0.5 * d1 * d2 * sin(\theta)$
- Q2: C 'd1' is one diagonal length, and 'd2' is the other diagonal length
- **Q3:** C 16
- Q4: A A polygon with four sides
- Q5: B 360 degrees
- Q6: D Parallel
- Q7: A Equal in length
- **Q8:** B s^2
- **Q9:** B b1 + b2 / 2 * h
- **Q10:** A I * b