

CHAPTER-8 | Playing with Construction

QUIZ
PART-17

1. What are diagonals of a rectangle or square?

- A. Lines joining adjacent vertices
- B. Lines joining opposite vertices
- C. Only vertical sides
- D. Only horizontal sides (B)

Explanation: The chapter defines diagonals as line segments joining opposite vertices.

2. In a rectangle, both diagonals are:

- A. unequal
- B. curved
- C. equal
- D. perpendicular always (C)

Explanation: The chapter clearly states that both diagonals of a rectangle are equal.

3. A diagonal divides a pair of opposite angles into:

- A. three parts
- B. two smaller angles
- C. four equal parts
- D. one straight angle (B)

Explanation: The chapter says a diagonal divides each of a pair of opposite angles into two smaller angles.

4. In the given construction, one diagonal divides the angle at A into:

- A. 45° and 45°
- B. 60° and 30°
- C. 50° and 40°
- D. 70° and 20° (B)

Explanation: The question asks for a rectangle where one diagonal divides the opposite angles into 60° and 30° .

5. In Step 1, AB is drawn with:

- A. fixed length 5 cm
- B. fixed length 10 cm
- C. arbitrary length
- D. length equal to BC (C)

Explanation: Step 1 says AB is drawn with an arbitrary length.

6. In Step 2, what angle is made at A by the diagonal line AC with AB?

- A. 30°
- B. 45°
- C. 60°
- D. 90° (C)

Explanation: The figure shows the diagonal making a 60° angle with AB at A.

7. Through which point is a line drawn perpendicular to AB to locate D?

- A. A
- B. B
- C. C
- D. D (C)

Explanation: In Method 1, a line is drawn perpendicular to BC at C to get point D.

8. In Method 2, point D is found using which fact?

- A. All sides of a rectangle are equal
- B. Opposite sides of a rectangle are equal
- C. Diagonals are perpendicular
- D. Adjacent sides are equal (B)

Explanation: Method 2 uses the fact that opposite sides of a rectangle are equal, so $AD = BC$.

9. If one part of angle A is 60° , the other part is:

- A. 15°
- B. 20°
- C. 30°
- D. 60° (C)

Explanation: Angle A of a rectangle is 90° , so the other part is $90^\circ - 60^\circ = 30^\circ$.

10. What does the assessment ask students to verify by constructing a rectangle of sides 5 cm and 4 cm?

- A. Whether all sides are equal
- B. Whether diagonals are equal
- C. Whether diagonals are perpendicular
- D. Whether all angles are acute (B)

Explanation: The assessment asks whether diagonals are equal in a rectangle.