

## CHAPTER-2 | Lines and Angles

### QUIZ PART-16

1. At 1 o'clock, the angle between the clock hands is  $30^\circ$ . Why?

- A. The hour hand moves  $30^\circ$  per hour
- B. The minute hand moves  $30^\circ$  per minute
- C. The hour hand moves  $360^\circ$  per hour
- D. The minute hand moves  $30^\circ$  per hour (A)

**Explanation:** The clock divides  $360^\circ$  into 12 hours, meaning the hour hand moves  $30^\circ$  per hour ( $360^\circ \div 12 = 30^\circ$ ).

2. What is the angle at 2 o'clock?

- A.  $60^\circ$
- B.  $90^\circ$
- C.  $120^\circ$
- D.  $180^\circ$  (A)

**Explanation:** At 2 o'clock, the angle between the hour and minute hands is  $60^\circ$ , as each hour represents a  $30^\circ$  movement.

3. What is the angle at 4 o'clock?

- A.  $90^\circ$
- B.  $120^\circ$
- C.  $150^\circ$
- D.  $180^\circ$  (B)

**Explanation:** At 4 o'clock, the angle between the hands is  $120^\circ$  ( $4 \text{ hours} \times 30^\circ = 120^\circ$ ).

4. What is the angle at 6 o'clock?

- A.  $90^\circ$
- B.  $180^\circ$
- C.  $120^\circ$
- D.  $150^\circ$  (B)

**Explanation:** At 6 o'clock, the hour and minute hands are directly opposite each other, forming a  $180^\circ$  angle.

5. What is the vertex of the angle when a door is opened?

- A. The top of the door
- B. The hinge of the door
- C. The bottom of the door
- D. The center of the door (B)

**Explanation:** The vertex of the angle is at the hinge, where the door pivots.

6. What are the arms of the angle when a door is opened?

- A. The top and bottom of the door
- B. The sides of the door
- C. The doorframe and the door
- D. The door and the floor (C)

**Explanation:** The arms of the angle are the two lines that form the angle, which are the doorframe and the door itself.

7. Can the angle of a door be measured?

- A. Yes, by using a protractor
- B. No, angles in doors cannot be measured
- C. Yes, but only with a ruler
- D. No, only with a calculator (A)

**Explanation:** The angle formed by the door and its frame can be measured using a protractor.

8. What angle does the swing form when it moves?

- A.  $90^\circ$
- B.  $120^\circ$
- C.  $150^\circ$
- D. The angle changes continuously (D)

**Explanation:** As Vidya swings, the angle changes continuously depending on the position of the swing.

9. What is the angle formed when Vidya is at the highest point of the swing?

- A.  $90^\circ$
- B.  $180^\circ$
- C.  $45^\circ$
- D. The angle depends on how high the swing goes (D)

**Explanation:** The angle formed at the highest point of the swing depends on the amplitude (how far back the swing is pulled).

10. Can you identify the angle in the swing diagram?

- A. Yes, it is  $45^\circ$
- B. Yes, it is  $90^\circ$
- C. Yes, it is an acute angle
- D. No angle is visible (C)

**Explanation:** In the diagram, the angle formed by the swing is acute, as it is less than  $90^\circ$ .