

CHAPTER-4 | Exploring Some Geometric Themes

QUIZ PART-15

1. A shadow is formed when an object —

A. Reflects light
B. Blocks light
C. Produces light
D. Absorbs sound

(B)

Explanation : A shadow forms when an opaque object blocks the path of light.

2. A shadow is always formed on the _____ side of the light source.

A. Opposite
B. Top
C. Left
D. Same

(A)

Explanation: The shadow appears on the side opposite to the light source.

3. The shape of the shadow depends on the _____ of the object with respect to the light source.

A. Colour
B. Orientation
C. Temperature
D. Weight

(B)

Explanation: Changing the orientation of an object changes the shape of its shadow.

4. When an object is moved closer to the light source, its shadow generally becomes —

A. Smaller
B. Larger
C. Invisible
D. Circular

(B)

Explanation: The shadow grows larger when the object is closer to the light source.

5. When an object is moved farther from the light source, its shadow generally becomes —

A. Larger
B. Brighter
C. Smaller
D. Coloured

(C)

Explanation : Increasing the distance from the light source usually reduces shadow size.

6. Which source of light is used in the chapter activities?

A. Candle
B. Bulb
C. Torch
D. Laser

(C)

Explanation : The activities demonstrate shadows using a torch as the light source.

7. The Sun is considered very far away, so its rays are nearly —

A. Curved
B. Parallel
C. Circular
D. Zig-zag

(B)

Explanation : Sunlight reaches Earth as nearly parallel rays because the Sun is very far away.

8. A parallelogram cutout placed in sunlight produces a shadow that is also a —

A. Triangle
B. Rectangle
C. Circle
D. Parallelogram

(D)

Explanation : With parallel sunlight, the shadow preserves the parallelogram shape.

9. Which factor does NOT directly affect the shape of a shadow?

A. Orientation of the object
B. Position of the light source
C. Colour of the object
D. Direction of light

(C)

Explanation : The colour of an object does not determine the shape of its shadow.

10. Shadows help us understand the relationship between —

A. Light and objects
B. Sound and objects
C. Heat and objects
D. Mass and objects

(A)

Explanation : Shadows are formed due to the interaction of light with objects that block it.