

## EXERCISE 5.1

Write the correct answer in each of the following:

1. The three steps from solids to points are:

- (A) Solids - surfaces - lines - points
- (B) Solids - lines - surfaces - points
- (C) Lines - points - surfaces - solids
- (D) Lines - surfaces - points - solids

**Solution:**

- (A) Solids - surfaces - lines - points

Explanation:

The three steps from solids to point are solids-surfaces-lines-points.  
Hence, option (A) is the correct answer.

2. The number of dimensions, a solid has:

- (A) 1
- (B) 2
- (C) 3
- (D) 0

**Solution:**

- (C) 3

Explanation:

The number of dimensions, a solid has is 3.  
Hence, option (C) is the correct answer.

3. The number of dimensions, a surface has:

- (A) 1
- (B) 2
- (C) 3
- (D) 0

**Solution:**

- (B) 2

Explanation:

The number of dimensions, a surface has is 2.  
Hence, option (B) is the correct answer.

4. The number of dimension, a point has:

- (A) 0
- (B) 1
- (C) 2
- (D) 3

**Solution:**

- (A) 0

Explanation:

The number of dimension, a point has is 0.  
Hence, option (A) is the correct answer.

**5. Euclid divided his famous treatise “The Elements” into:**

- (A) 13 chapters
- (B) 12 chapters
- (C) 11 chapters
- (D) 9 chapters

**Solution:**

- (A) 13 chapters

Explanation:

Euclid divided his famous treatise “The Elements” into 13 chapters.  
Hence, option (A) is the correct answer.

**6. The total number of propositions in the Elements are:**

- (A) 465
- (B) 460
- (C) 13
- (D) 55

**Solution:**

- (A) 465

Explanation:

Proportions or theorems are the statements that can be proved. Euclid deduced 465 proportions in a logical chain using his axioms, postulates, definitions and theorems.  
Hence, option (A) is the correct answer.

**7. Boundaries of solids are:**

- (A) Surfaces
- (B) Curves
- (C) Lines
- (D) Points

**Solution:**

- (A) Surfaces

Explanation:

The boundaries of solids are surfaces.  
Hence, option (A) is the correct answer.

**8. Boundaries of surfaces are:**

- (A) Surfaces
- (B) Curves
- (C) Lines
- (D) Points

**Solution:**

- (B) Curves

Explanation:

The boundaries of surfaces are curves.

Hence, option (B) is the correct answer.

**9. In Indus Valley Civilisation (about 3000 B.C.), the bricks used for construction work were having dimensions in the ratio**

- (A) 1 : 3 : 4
- (B) 4 : 2 : 1
- (C) 4 : 4 : 1
- (D) 4 : 3 : 2

**Solution:**

- (B) 4 : 2 : 1

Explanation:

In Indus Valley Civilisation (about 3000 B.C.), the bricks used for construction work were having dimensions in the ratio,

Length: breadth: thickness = 4:2:1

Hence, option (B) is the correct answer.

**10. A pyramid is a solid figure, the base of which is**

- (A) Only a triangle
- (B) Only a square
- (C) Only a rectangle
- (D) Any polygon

**Solution:**

- (D) Any polygon

Explanation:

A pyramid is solid figure, the base of which can be a triangle, a square or some other polygon.

Hence, option (D) is the correct answer.

**11. The side faces of a pyramid are:**

- (A) Triangles
- (B) Squares
- (C) Polygons
- (D) Trapeziums

**Solution:**

- (A) Triangles

Explanation:

The side faces of a pyramid are triangles.

Hence, option (A) is the correct answer.