Introduction to 2D and 3D Figures

A. Choose the correct answer:

1. A figure that has only length and breadth is called

a) 3D figure b) point

c) 2D figure d) volume

2. Which of the following is a 3D figure?

a) Circle b) Square

c) Cube d) Triangle

3. A 2D shape has

a) only one face b) faces and vertices

c) length and height d) length and breadth only

4. A cube has how many faces?

a) 4 b) 6

c) 8 d) 12

5. Which of the following shapes does not have edges?

a) Cube b) Cone

c) Sphere d) Cylinder

B. Write the Missing Terms to Complete the Sentences:

1. A figure with only two dimensions is called a _____ shape.
2. A cube is an example of a _____ dimensional figure.
3. A cone has _____ face, _____ edge, and _____ vertex.
4. A circle has no _____ or _____.
5. 3D shapes have _____, _____, and _____.

C. Mark each sentence with a True (✔) or False (✗):

1. A square is a 3D shape. _____
2. All 3D figures have at least one curved surface. _____

3. A sphere has no edges or vertices. _____
4. A triangle has three vertices and three edges. _____
5. A cube has 6 faces and 8 vertices. _____

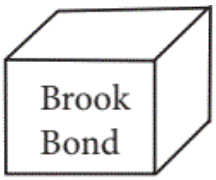
D. Figure out the answers to these questions:

1. Write any three differences between 2D and 3D figures.
2. Identify which of the following are 2D or 3D: rectangle, cylinder, triangle, sphere, cuboid.
3. Name the number of faces, edges, and vertices in a cuboid.
4. Explain with examples how a 3D shape casts a 2D shadow.
5. List any five 3D objects seen in your daily life and name their geometric shapes.

E. Challenge yourself with these questions:

1. Draw a cube and label its faces, edges, and vertices.
2. Sort the following into 2D and 3D shapes: cone, hexagon, pentagon, pyramid, oval.
3. A football is an example of which type of figure? Write its properties.
4. Match the following 3D shapes with their flat faces: cube, cone, cylinder.
5. Observe your surroundings and list five things that are 3D objects and name their geometric form.

F. Identify and write the geometrical name of the following:

A. 

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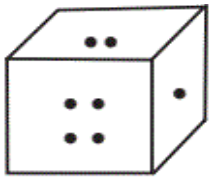
B. 
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C. 
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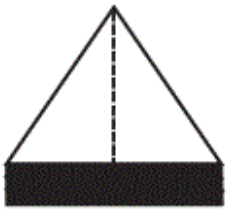
D. 

E. 

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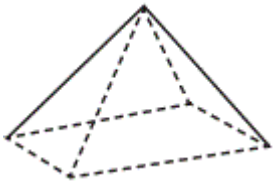
G. 

H. 

G. Is the given figure, a cuboid?

A. Name the edges which meet at vertex A.

B. Name the edges of the face C'D' DC.

C. Name the faces which meet at the edge A'D'.

D. Name the front face of the cuboid.

E. A'B'C'D' is the base, then name the lateral faces.