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# Grade 7 Visualising Solid Shapes Question Bank

1. **Identifying Solid Shapes**
   * Name the solid shape with 6 equal square faces.
   * Identify the shape with 1 curved surface and 1 circular base.
   * Classify: Is a sphere a polyhedron? Explain.
2. **Faces, Edges, and Vertices**
   * Find the number of faces, edges, and vertices in a cube.
   * Calculate the faces, edges, and vertices of a triangular prism.
   * Determine the number of vertices in a rectangular pyramid.
3. **Euler’s Formula**
   * Verify Euler’s formula (F + V - E = 2) for a cube.
   * Apply Euler’s formula to a tetrahedron with 4 faces and 4 vertices.
   * Use Euler’s formula to find the number of edges in a pentagonal prism.
4. **Nets of Solid Shapes**
   * Draw a net for a cylinder.
   * Identify if a given net forms a cube.
   * Sketch a net for a triangular pyramid (tetrahedron).
5. **Identifying Nets**
   * Which solid is formed by a net with 6 squares?
   * Determine the solid formed by a net with 2 circles and 1 curved surface.
   * Check if a net with 4 triangles and 1 square forms a solid.
6. **Cross-Sections of Solids**
   * Describe the cross-section of a cube parallel to its base.
   * What shape is the cross-section of a cylinder perpendicular to its base?
   * Find the cross-section of a cone parallel to its base.
7. **Oblique and Isometric Sketches**
   * Draw an oblique sketch of a cuboid.
   * Sketch an isometric view of a cube.
   * Create an oblique sketch of a triangular prism.
8. **Word Problems**
   * A box is a cuboid with 8 vertices. How many edges does it have?
   * A solid has 5 faces, 5 vertices, and 8 edges. Name the shape.
   * A net with 2 triangles and 3 rectangles forms what solid?
9. **Properties of Polyhedrons**
   * How many faces does a hexagonal prism have?
   * Find the number of edges in a pentagonal pyramid.
   * Determine the number of vertices in an octagonal prism.
10. **Visualising Rotations**
    * Describe the shape formed by rotating a rectangle about its side.
    * What solid is formed by rotating a circle about its diameter?
    * Identify the solid formed by rotating a triangle about one side.
11. **Mixed Questions**
    * Draw a net and find the number of faces for a rectangular prism.
    * Verify Euler’s formula for a cylinder and describe its cross-section.
    * Sketch an isometric view of a cone and identify its net.
12. **Practical Applications**
    * A dice is a cube. How many faces, edges, and vertices does it have?
    * Draw a net for a box (cuboid) and calculate its edges.
    * A tent is shaped like a triangular prism. Sketch its isometric view.