



MATHEMATICS

GRADE 06

Lesson 17 – SOLIDS. Worksheet

1. Section 1: Models and Shapes of Solids

- a. Prepare models of a cube, cuboid, and regular tetrahedron. Identify the shape of each face of the cube and state the total number of faces, edges, and vertices it has.
- b. Construct a cuboid model and describe the shapes of its faces. Determine the number of faces, edges, and vertices in the cuboid.
- c. Create a regular tetrahedron model and identify the shape of each face. Count the faces, edges, and vertices of the tetrahedron.
- d. How many faces does a cube have? Name the shapes of the faces and determine the total number of faces, edges, and vertices.
- e. Identify the shape of the faces of a cuboid. How many edges does a cuboid have? Count the vertices of the cuboid.
- f. List the shapes of the faces of a regular tetrahedron. State the number of edges and vertices in a tetrahedron.
- g. Create a compound solid by combining a cube and a cuboid. Determine the shapes of the faces, edges, and vertices of the new solid.
- h. Use a cube, cuboid, and regular tetrahedron to create a compound solid. Describe the shapes of the faces, edges, and vertices of the resulting solid.
- i. How many vertices does a cube have? Identify the shapes of the faces and count the edges in a cube.
- j. Construct a compound solid using a cuboid and a regular tetrahedron. State the shapes of the faces, count the edges, and identify the vertices of the compound solid.

2. Section 2: Nets and Compound Solids

- a. Create a net for a cube and explain how it can be folded to form the three-dimensional shape.
- b. Design a net for a cuboid that can be folded to create the actual solid.
- c. Construct a net for a regular tetrahedron and demonstrate how it can be folded to form the three-dimensional shape.
- d. Combine the nets of a cube and a cuboid to create a compound solid. Describe the shapes of the faces, count the edges, and identify the vertices of the compound solid.
- e. Use the net of a regular tetrahedron and a cube to create a compound solid. Explain the characteristics of the resulting solid.
- f. Identify the net of a cube from various options. Cut out the net, fold it, and verify if it forms a cube.
- g. Create a compound solid by combining the nets of a cuboid and a regular tetrahedron. Describe the properties of the new solid.
- h. Investigate different nets for a cube and determine which one will form a cube when folded.
- i. Design a net that can be folded to create a compound solid using a cube and a regular tetrahedron. Describe the shapes of the faces, count the edges, and identify the vertices of the resulting solid.
- j. Construct a compound solid by combining the nets of a regular tetrahedron and a cube. Explain the features of the new solid.