# **Faces, Edges and Vertices**

#### Faces:

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The flat surface of any solid is called a face.

### **Edges:**

Line segments common to intersecting faces of a polyhedron are known as its edges. Line segments that form the solid are called edges.

#### Vertices:

Points of intersection of edges of a polyhedron are known as its vertices. Corners of the solid are its vertices.



- I. Vertex The 8 corners of thecube are its vertices
- II. The 6 flat square surfaces are its faces.

#### III. The 12-line segments that form the cube are its edges

Each of these solids is made up of polygonal regions which are called its faces. These faces meet at edges which are line segments and the edges meet at vertices which are points. Such solids are called as polyhedrons.

#### CUBE



F = Number of Faces = 6
E = Number of Edges = 12
V = Number of Vertices = 8
Clearly, F + V = E +2

## QUBOID



F = Number of Faces = 6 E = Number of Edges = 12 V = Number of Vertices = 8

ClearlyF ♦ V = E +2

P