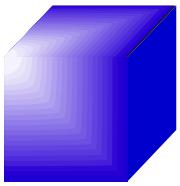
3D SOLIDS
INVESTIGATION
EULER'S FORMULA

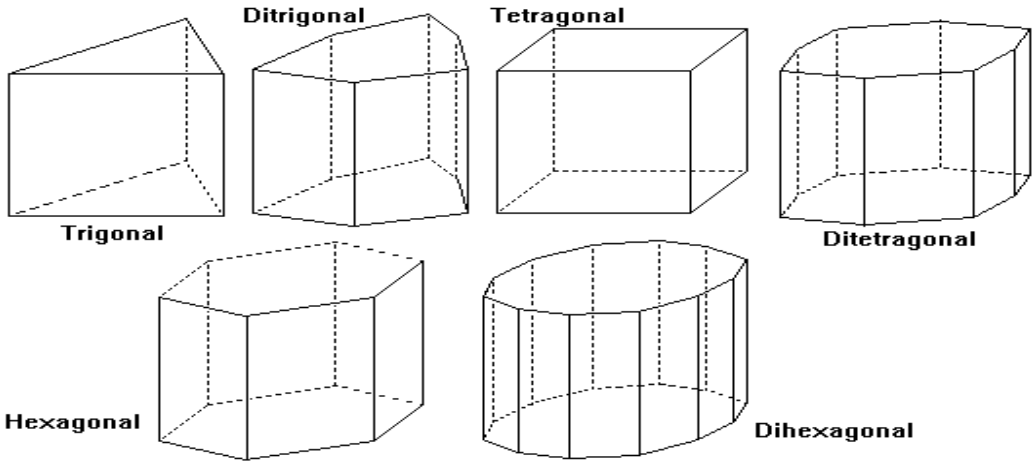


Consider this cube. It has 6 faces, 8 vertices (corners) and 12 edges.

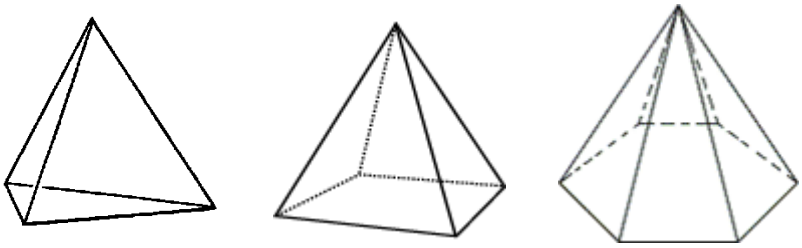
A Swiss mathematician named Euler found a relationship between the number of faces, vertices and edges of prisms and pyramids.

Consider the 3D solids shown and then complete the table below. What is the relationship between the number of faces (F), the number of vertices (V) and the number of edges (E)?

SOME PRISMS



SOME PYRAMIDS



NAME OF 3D SOLID	NUMBER OF FACES (F)	NUMBER OF VERTICES OR CORNERS (V)	NUMBER OF EDGES (E)	F + V
CUBE	6	8	12	14