



පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව සබරගමුව - සති පාසල

Subject: - Mathematics

Week: - 10 (1st Term)

Grade: - 8

Prepared by- Zonal Education Office
Embilipitiya

(Learning Time 3Hours)

Solids

- An object which has a specific shape and which occupies a certain amount of space is called a solid object.
- The surfaces of solid objects are plane surfaces or curved surfaces.

6.5 Verification of Euler's relationship for solids

- Euler's relationship is a relationship between the edges, vertices and faces of a solid which was first presented by the Swiss mathematician Euler.

Euler's relationship

In a solid with straight edges, the sum of the number of faces and the number of vertices is two more than the number of edges.

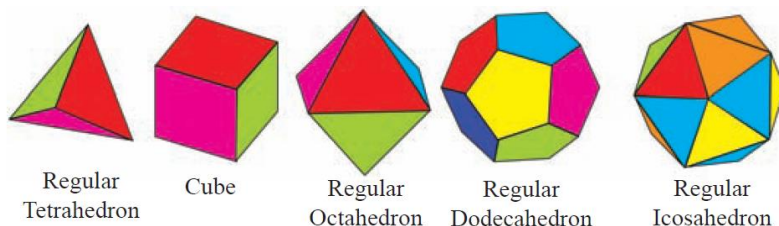
This relationship can be expressed as follows.

$$\begin{array}{rclcl} \text{Number of Vertices} & + & \text{Number of Faces} & = & \text{Number of Edges} + 2 \\ V & + & F & = & E + 2 \end{array}$$

- By studying the models of solids that you have made in last week. Do the activity 4
- Do the exercise 6.2

6.6 Platonic solids

- Platonic solids are solids having identical regular polygonal faces and with the same number of faces meeting at every vertex.
- There are five platonic solids as follows.



- Do the exercise 6.3