

**Sample Test:**

**Mathematics and Geometry in Architecture. : SGYMMAT2810ER**

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**1. Put the correct order the Construction of a regular Tetrahedron ABCD a given Side.**

- 1 Rotate c1 along an Axis CC' with 90°
- 2 Rotate c2 along an Axis BB' with 90°
- 3 Mirror ABC across a AC line to create the AB'C triangle
- 4 Draw a circle c<sub>1</sub> of radius  $\frac{CC'}{2}$  with middle point of AB as the center
- 5 Join, D, the point of intersection of the two arcs c<sub>1</sub> and c<sub>2</sub> to the points A, B, C.
- 6 Draw an equilateral triangle ABC the given side.
- 7 Mirror ABC across a AB line to create the ABC' triangle
- 8 Draw a circle c<sub>2</sub> of radius BB'/2 with middle point of AC as the center

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**2. How many faces, edges and vertices do the Platonic Solids have?**

Platonic					
Faces					
Edges					
Vertices					

**3. Correct the sentence: Euler's Formula for Simple Polyhedron:**

The number of Faces **plus/minus** the Number of Vertices **plus/minus** the Number of Edges equals 2.

**4. Present a rigid a flexible, an infinitesimally rigid, and an infinitesimally flexible framework (connect a line).**

