

Class Test

Time: 40 minutes
Mathematics
F.M. - 16

Date: 18/02/25

Topic: Simple Equation; Visualizing Solid Shapes

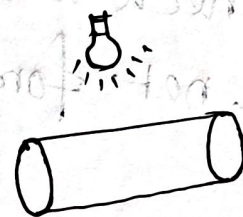
[A] Choose the correct option: — $[1 \times 4 = 4]$

(1) The value of x for which the L.H.S & R.H.S of the following equation will be same is —

$$7x - 12 = 4x + 9$$

(a) 7 (b) -7 (c) 3 (d) -3

(2) If the source of light is placed at the top of a cylinder (See the adjoining fig.), the shadow will look like —



(a) Rectangle (b) Square (c) Triangle (d) Cube

(3) If we give a vertical cut to a pentagonal pyramid, the cross-section will look like —

(a) Triangle (b) Hexagon (c) Pentagon (d) Square

(4) Assertion: A net of a cube has 6 square faces.

Reason (R): A net of a solid shape is a 2D representation of its faces.

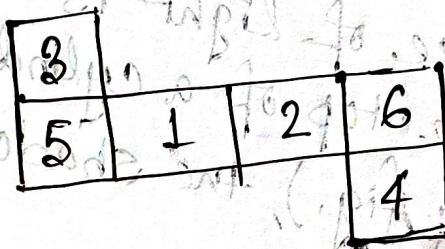
(a) A ✓ R ✓ E ✓ (b) A ✓ R ✓ E ✓ (c) A ✓ R ✓ (d) A ✓ R ✓

[B] Complete the following table: $[1.5 \times 3 = 4.5]$

Name of 3D shapes	No. of faces (F)	No. of edges (E)	No. of Vertices (V)
Tetrahedron			
Triangular Prism			
Square Pyramid			

[C] Draw the net of a cylinder. $[1]$

[D] Check whether the following net can be a net for a die or not? $[2]$



[E] Solve the following equation: $[2]$

$$2(x+3) + 5(x-2) = 3(x-1) + 11$$

OR

Draw an isometric sketch of a cuboid of dimension $6 \text{ cm} \times 4 \text{ cm} \times 3 \text{ cm}$ $[2]$

[F] Ria's father is 36 years older than her. Five years ago, her father was 4 times as old as she was, how old is Ria and her father now? $[2.5]$