



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



**Sub: Arithmetic**  
**Duration: 40 min**

**Class: 7**  
**Worksheet Solutions 30**  
**CUBES AND CUBOIDS**

**Date: 12.06.20**  
**Full Marks: 15**

**Choose the Correct options:**

1. Total area of exhibition hall is  $360\text{m}^2$ . The measurement of each exhibition space is 5m width and 6m length. Calculate the maximum number of exhibition space that be provided in the hall?

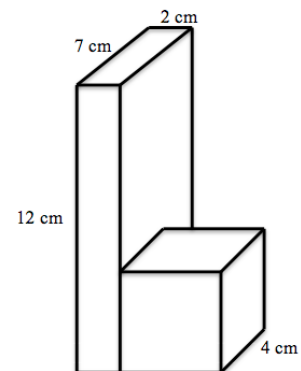
- (a) 12
- (b) 24
- (c) 48
- (d) 96

2. A cube has a volume  $64\text{cm}^3$ . What is the area, in  $\text{cm}^2$ , of one surface of the cube?

- (a) 4
- (b) 8
- (c) 16
- (d) 32

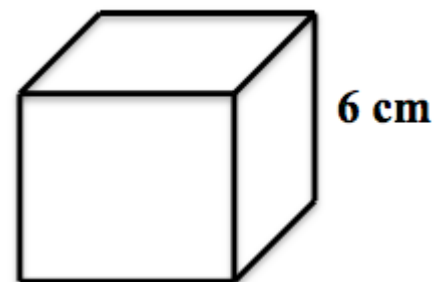
3. Find the volume, in  $\text{cm}^3$ , of the composite shape.

- (a) 232
- (b) 253
- (c) 332
- (d) 352



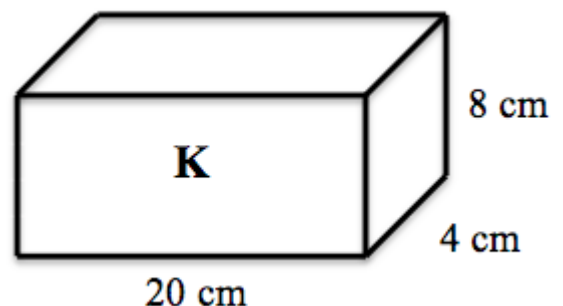
4. The cube shown is divided into two cuboids of equal size. Calculate the volume, in  $\text{cm}^3$ , of a cuboid.

- (a) 54
- (b) 72
- (c) 108
- (d) 144



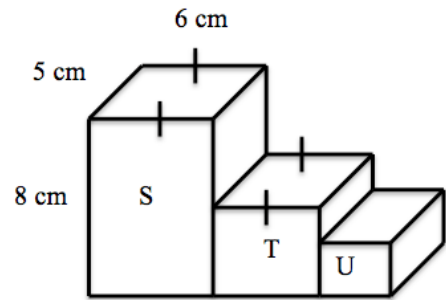
5. How many cubes with edges of 4 cm are needed to form cuboid K?

- (a) 10
- (b) 36
- (c) 40
- (d) 80



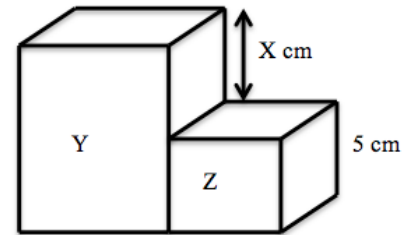
6. Diagram shows a composite 3D shape, cuboid S, T and U. The total volume of the whole solid is  $400 \text{ cm}^3$ . The height of S is twice the height of T. What is the volume of U?

- (a)  $40 \text{ cm}^3$
- (b)  $80 \text{ cm}^3$
- (c)  $120 \text{ cm}^3$
- (d)  $240 \text{ cm}^3$

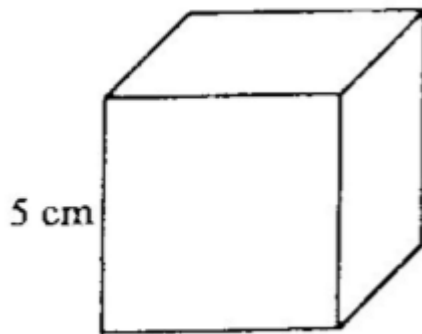


7. Diagram consists of a cuboid Y and a cube Z with same size of bases. The volume of the whole diagram is  $325 \text{ cm}^3$ , what is the value of X in cm?

- (a) 3
- (b) 8
- (c) 10
- (d) 13



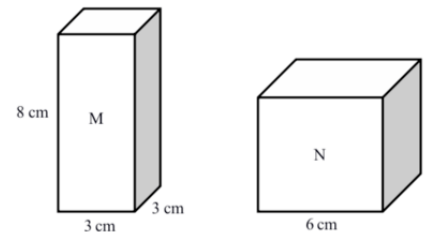
8. Diagram shows a cubes. Which of the following cuboid has the 60% of the volume of the cube?



- (a) 8 cm, 3 cm, 5 cm
- (b) 4 cm, 12 cm, 3 cm
- (c) 7 cm, 2 cm, 5 cm
- (d) 15 cm, 5 cm, 1 cm

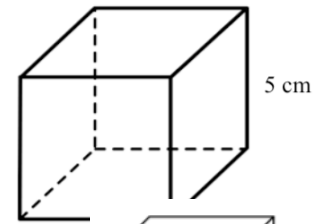
9. What is the difference in volume, in  $\text{cm}^3$ , between M and N?

- (a) 47
- (b) 53
- (c) 144
- (d) 197



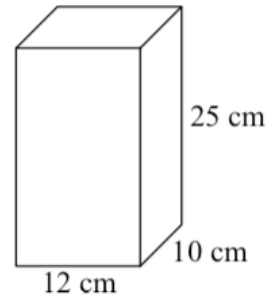
10. Chong filled 40% of the container with water. Calculate the volume, in  $\text{cm}^3$ , of the empty space left in the container.

- (a) 125
- (b) 75**
- (c) 50
- (d) 20



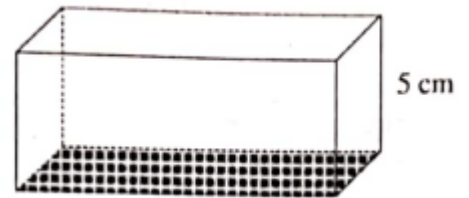
11. Diagram shows a water container. Omar fill  $\frac{3}{5}$  of its with water. What is the volume of water in that container?

- (a)  $900 \text{ cm}^3$
- (b)  $1\,200 \text{ cm}^3$
- (c)  $1\,800 \text{ cm}^3$**
- (d)  $3\,000 \text{ cm}^3$



12. The shaded surface area is  $36 \text{ cm}^2$ . Calculate one third of the volume, in  $\text{cm}^3$ , of the cuboid.

- (a) 60**
- (b) 90
- (c) 120
- (d) 180



13. The volume of a cuboid of sides  $\frac{1}{2} \text{ m}$ ,  $20 \text{ cm}$ ,  $10 \text{ cm}$  is

- (a)  $100 \text{ cm}^3$
- (b)  $1000 \text{ cm}^3$
- (c)  $10\,000 \text{ cm}^3$**
- (d)  $100\,000 \text{ cm}^3$

14 A rectangular tank is  $100 \text{ cm}$  long,  $30 \text{ cm}$  wide and  $12 \text{ cm}$  deep. The volume of liquid it will hold is

- (a) 3.6 litres
- (b) 36 litres**
- (c) 360 litres
- (d) 3600 litres

15 The width of a block of wood with rectangular cross-section is  $x \text{ cm}$ . Its height is  $\frac{2}{3}$  its width and its length is 4 times its height. What is its volume in  $\text{cm}^3$ ?

- (a)  $\frac{8x}{9}$
- (b)  $\frac{16x^3}{9}$
- (c)  $\frac{8x^3}{3}$**
- (d)  $\frac{17x}{3}$