



Name_____

Class_____

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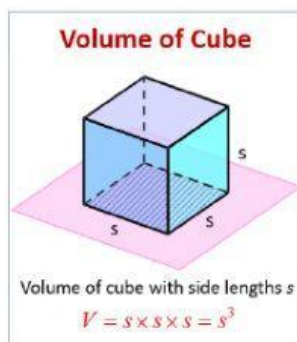
English for Science 2

Finding Volume of Cube, Cuboid and Cylinder

(การหาปริมาตรของลูกบาศก์ ทรงลูกบาศก์ และทรงกระบอก)

Volume of a Cube:

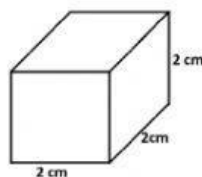
Volume = side x side x side = s^3



Example: Find the volume of the cube below:

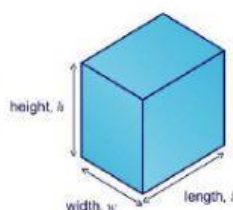
Solution:

$$\text{Volume} = 2 \text{ cm} \times 2 \text{ cm} \times 2 \text{ cm} = 8 \text{ cm}^3$$



Volume of a Cuboid:

Volume = length x width x height
 $V = L \times W \times H$



The area of the base
= length x width

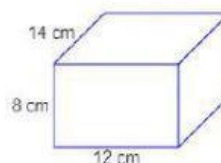
So,

Volume of a cuboid
= length x width x height
= lwh

Example: Find the volume of the cuboid below:

Solution:

$$\text{Volume} = 12 \text{ cm} \times 14 \text{ cm} \times 8 \text{ cm} = 1,344 \text{ cm}^3$$

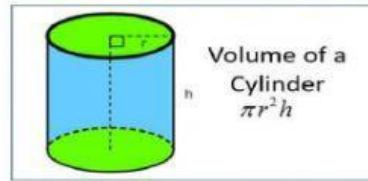


Volume of a Cylinder:

Volume = $\pi \times \text{radius}^2 \times \text{height}$

$$V = \pi \times r^2 \times h$$

where $\pi = 3.14$ or about $\frac{22}{7}$



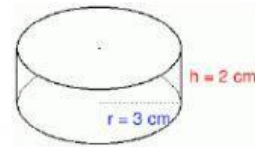
Example: Find the volume of the cylinder below:

Solution:

$$\text{Volume} = \pi \times r^2 \times h$$

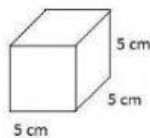
$$V = \pi \times (3 \text{ cm})^2 \times 2 \text{ cm}$$

$$V = 18\pi \text{ cm}^3 \text{ or } 18 \times 3.14 \text{ cm}^3 = 56.52 \text{ cm}^3$$



Find the volume of the following solids.

1. Cube

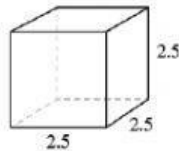


a. 225 cm^3

b. 215 cm^3

c. 125 cm^3

2. Cube

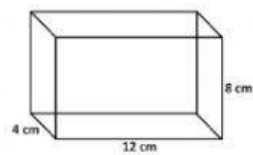


a. 15.5254 cm^3

b. 15.625 cm^3

c. 16.625 cm^3

3. Cuboid

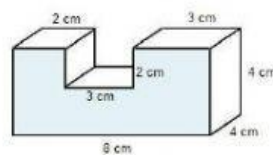


a. 384 cm^3

b. 394 cm^3

c. 284 cm^3

4. Composite shape

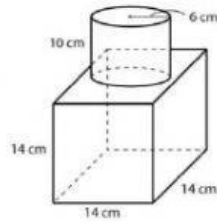


a. 124 cm^3

b. 115 cm^3

c. 104 cm^3

5. Composite shape

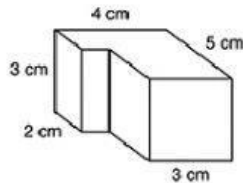


a. $3,874.4 \text{ cm}^3$

b. $3,784.4 \text{ cm}^3$

c. 3876.4 cm^3

6. Composite shape

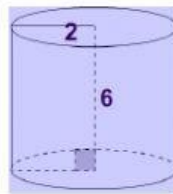


a. 59 cm^3

b. 60 cm^3

c. 51 cm^3

7. Cylinder

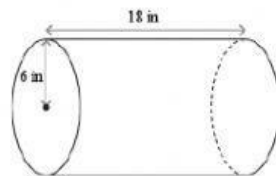


a. 30π

b. 24π

c. 12π

8. Cylinder

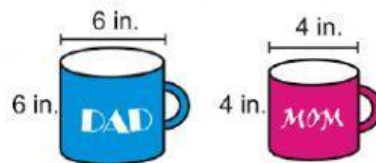


a. $648\pi \text{ in}^3$

b. $546\pi \text{ in}^3$

c. $748\pi \text{ in}^3$

For questions 9-11, see the two cups below.



9. Find the volume of Dad's cup.

a. $216\pi \text{ cm}^3$

b. $54\pi \text{ in}^3$

c. $64\pi \text{ in}^3$

10. Find the volume of Mom's cup.

a. $18\pi \text{ in}^3$

b. $64\pi \text{ in}^3$

c. $16\pi \text{ in}^3$

11. Which cup has the greater volume?

a. Dad's cup

b. Mom's cup

c. the same

"What God says about me is more important than what people say."

"สิ่งที่พระเจ้าตรัสเกี่ยวกับฉันสำคัญกว่าสิ่งที่ผู้คนพูด"

- anonymous