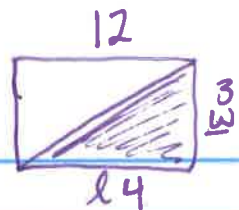
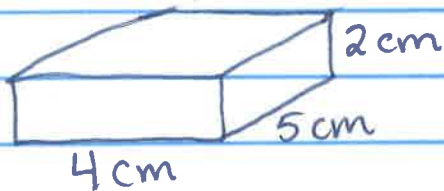


M5.L5 - Volume

Fluency



$$\frac{1}{2}bh$$



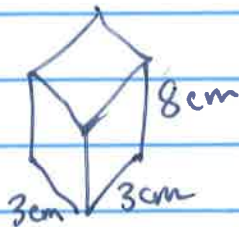
$$l = 4 \text{ cm}$$

$$w = 5 \text{ cm}$$

$$h = 2 \text{ cm}$$

$$V = (4 \text{ cm} \times 5 \text{ cm}) \times 2 \text{ cm}$$

$$V = 40 \text{ cm}^3$$



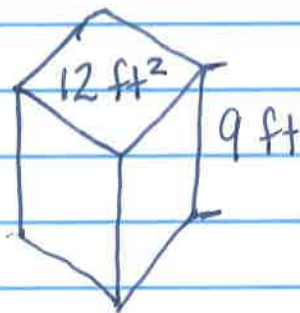
$$l = 3 \text{ cm}$$

$$w = 3 \text{ cm}$$

$$h = 8 \text{ cm}$$

$$V = (3 \text{ cm} \times 3 \text{ cm}) \times 8 \text{ cm}$$

$$V = 72 \text{ cm}^3$$



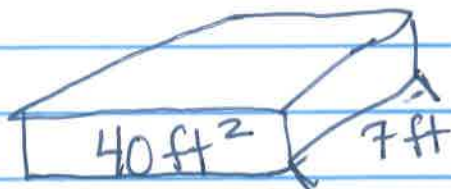
$$\text{Area} = 12 \text{ ft}^2$$

$$h = 9 \text{ ft}$$

$$V = (12 \text{ ft}^2) \times 9 \text{ ft}$$

$$V = 108 \text{ ft}^3$$

$$\frac{12 \times 9}{8}$$



$$\text{Base} = 40 \text{ ft}^2$$

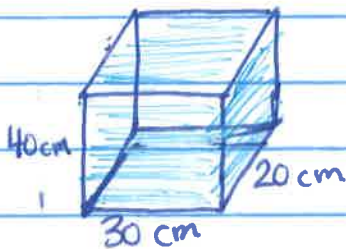
$$\text{width} = 7 \text{ ft}$$

$$V = (40 \text{ ft}^2) \times 7 \text{ ft}$$

$$V = 280 \text{ ft}^3$$

$$1 \text{ cm}^3 = 1 \text{ mL}$$

Volume = Capacity



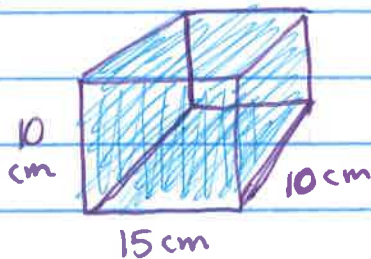
$$\begin{aligned} \text{Volume} &= (30 \text{ cm} \times 20 \text{ cm}) \times 40 \text{ cm} \\ V &= (600 \text{ cm}^2) \times 40 \\ V &= 24000 \text{ cm}^3 \end{aligned}$$

$$24,000 \text{ mL} = 24 \text{ L}$$

$$E = 24000 \times 1 \text{ mL}$$

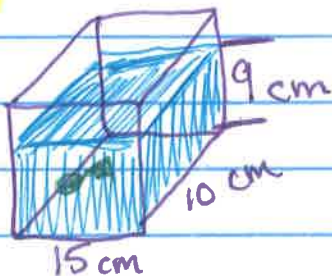
$$C = 24000 \times 0.001 \text{ L}$$

$$A = 24 \text{ L}$$



$$\begin{aligned} V &= (15 \text{ cm} \times 10 \text{ cm}) \times 10 \text{ cm} \\ V &= 1500 \text{ cm}^3 \end{aligned}$$

$$\text{Volume of Water} = 1500 \text{ mL}$$



Volume of Water =

$$\text{Volume} = (15 \text{ cm} \times 10 \text{ cm}) \times 9 \text{ cm}$$

$$V = 1350 \text{ cm}^3$$

$$1350 \text{ mL}$$

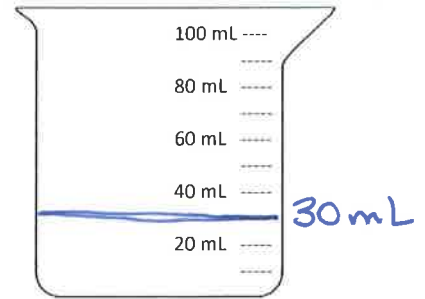
Water Left

$$1500 \text{ mL} - 1350 \text{ mL} = 150 \text{ mL}$$

Name _____

Date _____

1. Johnny filled a container with 30 centimeter cubes. Shade the beaker to show how much water the container will hold. Explain how you know.



2. A beaker contains 250 mL of water. Jack wants to pour the water into a container that will hold the water. Which of the containers pictured below could he use? Explain your choices.

A

6 cm, 12 cm, 12 cm

$V = 6\text{ cm} \times 12\text{ cm} \times 12\text{ cm}$
 $V = 864\text{ cm}^3$

B

12 cm, 12 cm, 12 cm

Area = 20 cm²

$V = 20\text{ cm}^2 \times 12\text{ cm}$
 $V = 240\text{ cm}^3$

C

5 cm, 25 cm, 2 cm

$V = 25\text{ cm} \times 2\text{ cm} \times 5\text{ cm}$
 $V = 250\text{ cm}^3$

E

3 cm, 3 cm, 3 cm

Area = 75 cm²

$V = 75\text{ cm}^2 \times 3\text{ cm}$
 $V = 225\text{ cm}^3$

D

3 cm, 5 cm, 15 cm

$V = 3\text{ cm} \times 5\text{ cm} \times 15\text{ cm}$
 $V = 225\text{ cm}^3$

3. On the back of this paper, describe the details of the activities you did in class today. Include what you learned about cubic centimeters and milliliters. Give an example of a problem you solved with an illustration.