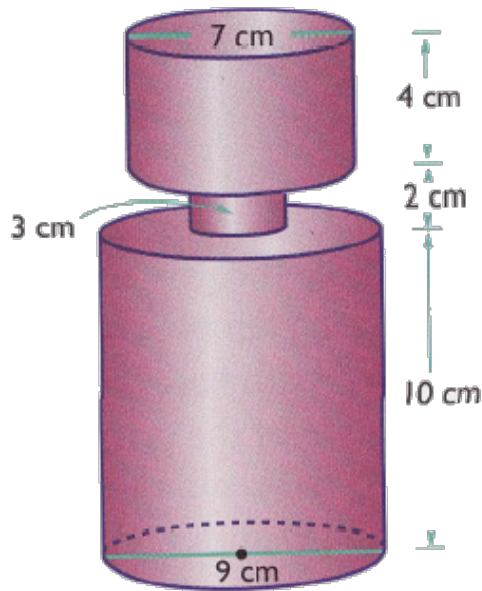


WARM-UP Find the volume of each figure... $V = \pi r^2 h$

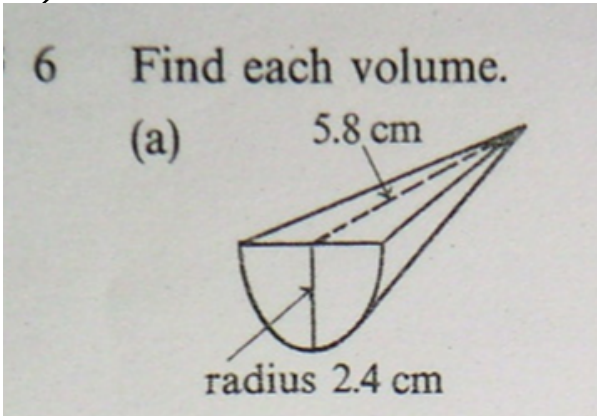
4)



$\pi(4.5)^2 * 10$	63617.25124
$\pi(4.5)^2 * 10$	636.1725124
$153.9 + 14.1 + 636.2$	804.2

804.2 cm³

HW???

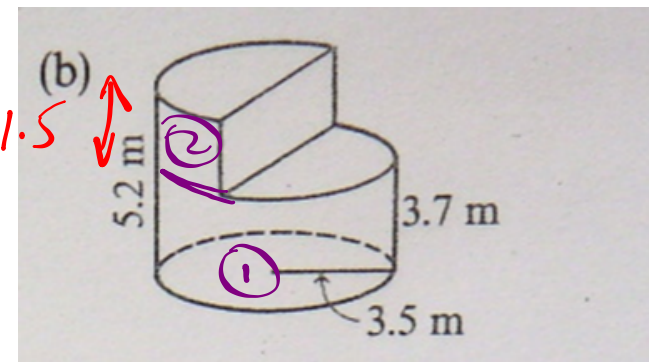


$$V = \frac{\pi r^2 h}{3}$$

$$V = \frac{\pi (2.4)^2 (5.8)}{3}$$

$V = \frac{\pi(2.4^2)(5.8)}{3}$
 Ans/2 34.98477579
 17.4923879

V_{cone} ↑



$$V_{(1)} = \pi (3.5)^2 (3.7)$$

$$V_{(1)} = 142.4 \text{ m}^3$$

$$V_{(2)} = \frac{\pi (3.5)^2 (1.5)}{2}$$

$$V_{(2)} = 28.9 \text{ m}^3$$

$$V_{\text{total}} = 142.4 + 28.9$$

$$\underline{171.3 \text{ m}^3}$$

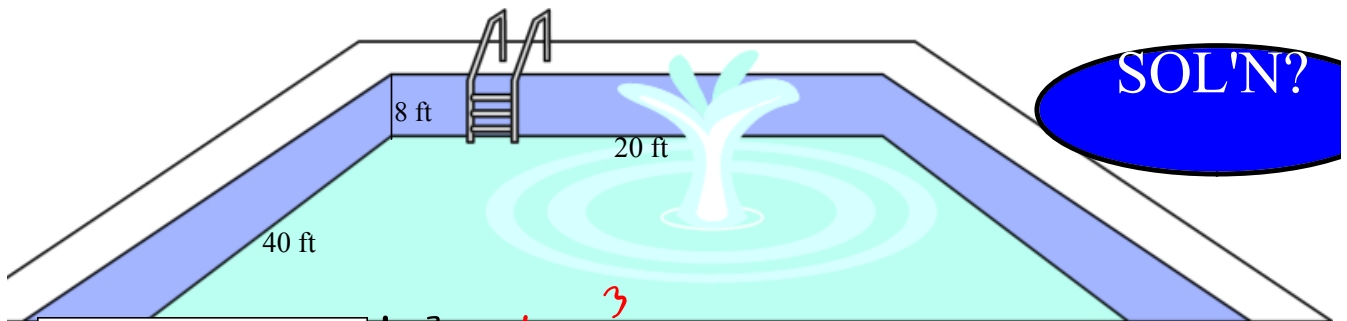
- 7 A rectangular pool has dimensions 10.6 m long, 6.2 m wide and 2.1 m deep.
- (a) The water level is 22.5 cm below the edge of the pool. Calculate the volume of water in the pool.
- (b) Each day it costs 3.29¢/m³ to maintain the pool. Calculate the total cost of maintaining the pool from May 24 to September 18.

a) $V = 6.2(10.6)(1.875)$
 $V = 123.2 \text{ m}^3$

b) $3.29 \times 123.2 \times 118$
 Ans/100 47828.704
 cost = 478.28704

TRY THIS ONE...

A swimming pool needs to be filled with water. It costs \$0.005/L to fill the pool. How much will it cost to fill the rest of the swimming pool?



$8 \times 20 \times 40$

6400

$V =$

$ft^3 \times \frac{1 m}{3.2808 ft}^3$

$V = 181.23 m^3 \times \frac{1000 L}{1 m^3}$

$Cost = 181234 \times 0.005$
 $= \$906.17$

$V = 181234 L$

Ex:

A fitness ball is delivered in a flat package with a hand pump. The pump inflates the ball at a rate of 280 cm^3 per pump, to a diameter of 28 cm. How many pumps are needed to inflate the ball? Justify your answer.

$$V = \frac{4}{3}\pi(14)^3$$

11494.04032

$$= 11494.0 \text{ cm}^3$$

$$\# \text{ of pumps} = \frac{11494}{280}$$
$$= 41 \text{ pumps}$$



19. 42 pumps

1.6 Surface Area and Volume of a Sphere

HOMEWORK...

 Worksheet - Applications SA and Volume (6.1 - 6.4).pdf

Unit Test on Surface Area & Volume on
THURSDAY!!!

Attachments

Worksheet - Applications SA and Volume (6.1 - 6.4).pdf