Chapter #7 Volume

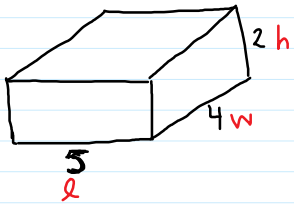
May 11, 2016 8:36 AM

7.1 Understanding Volume

Volume - the amount of space an object takes up
- measured in cubic units
  ex cm^3, km^3, mm^3

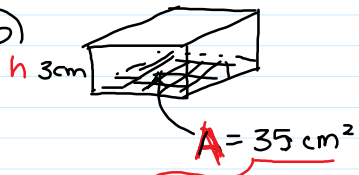
Ex #1

a)



$V = \ell wh$
$= 5 \times 4 \times 2$
$= \boxed{40}$

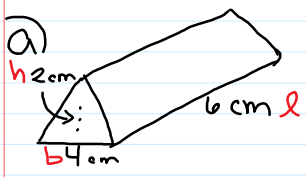
b)



$V = \ell wh$
$= (35)(3)$
$= \boxed{105 cm^3}$

Ex #2

a)



$V = \frac{(bh)}{2} \times \ell$

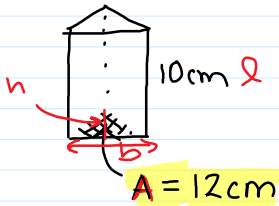
$= \frac{(4 \times 2)}{2} \times 6$

$= \frac{8}{2} \times 6$

$= 4 \times 6$

$= \boxed{24 cm^3}$

b)



$V = \frac{bh}{2} \times \ell$

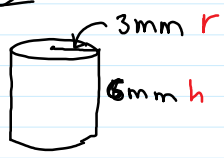
$= 12 \times 10$

$= \boxed{120 cm^3}$

area of a triangle $\left(\frac{1}{2} bh\right)$ or $\left(\frac{bh}{2}\right)$

Ex #3

a)



$V = \pi r^2 h$

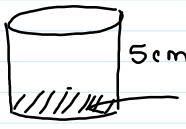
$= \pi(3^2)(6)$

$= \pi(9)(6)$

$= 54\pi$

$= \boxed{169.65 mm^3}$

b)



$V = \pi r^2 h$

$= (27)(5)$

$= \boxed{135 cm^3}$

$SA = 2\pi r^2 + 2\pi rh$
$= \pi r^2$
(1 face)

pg 250 # 3-11, 13, 17