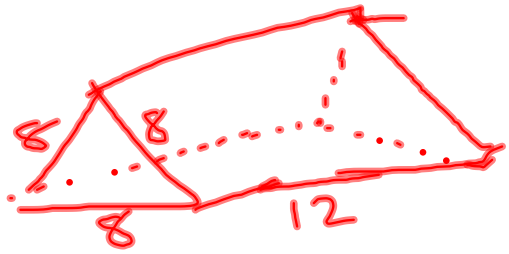


$L = 24(12)$

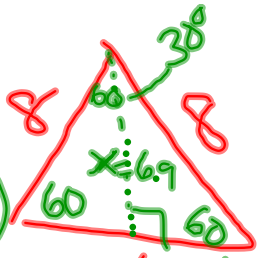
$= 288\ cm^2$

$S = L + 2B$

$S = 288 + 2\left(\frac{1}{2}\right)(8)(6.9)$

$S = 288 + 55.2$

$S = 343.2\ cm^2$



$x \tan 30 = 4$

$\frac{x \tan 30}{\tan 30} = \frac{4}{\tan 30}$

$X = 6.9$

22.

left Pyramid

$L = \frac{1}{2}Pl$

$L = \frac{1}{2}(36)(15)$

$L = 270\ cm^2$

square prism

$L = Ph$

$= 36(9)$

$= 324\ cm^2$

Right pyramid

$L = \frac{1}{2}Pl$

$= \frac{1}{2}(36)(19)$

$= 342\ cm^2$

$270 + 324 + 342 = 936\ cm^2$

$0 = 3t$

$4 = 5x$

b

10-6 Volume of prisms & cylinders

Volume: space inside a 3D figure.

Volume of a prism with base area B and height h is

$$V = Bh.$$

- rt. rect. prism: $V = \ell wh$
- cube: $V = s^3$

volume of a cube with edge length 5 cm.

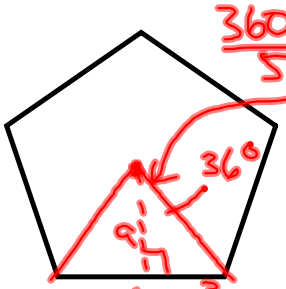
$$V = 5^3$$
$$V = 5^3$$
$$V = 125 \text{ cm}^3$$

Find the volume of a rt. pentagonal prism with base length 6 m & height 7m.

$V = Bh$

$V = 61.95 \cdot 7$

$V = 433.65\ m^3$



$B = \frac{1}{2}aP$

$B = \frac{1}{2}(4.13)(30)$

$B = 61.95$

$\tan 36 = \frac{3}{a}$

$a \tan 36 = 3$

$\frac{a \tan 36}{\tan 36} = \frac{3}{\tan 36}$

$a = 4.13$

Volume of a cylinder with radius r and height h is

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

$V = \pi r^2 h$

$V = \pi (9)^2 (14)$

$V = 1134\pi \text{ yd}^3$

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2-24, skip 9, 10, 20, 21