12.

big cylinder

$V = \pi r^2 h$

$= \pi (10)^2 (15)$

$= 4712.4 \text{ in}^2$

small cylinder

$V = \pi r^2 h$

$= \pi (5)^2 15$

$= 1178.1 \text{ in}^2$

$4712.4 - 1178.1$

$= 3534.3 \text{ in}^2$

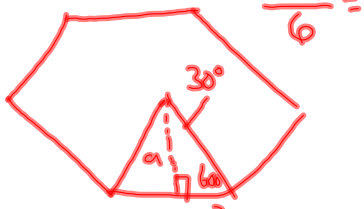
3. $V = Bh$

$B = \frac{1}{2} a P$

$= \frac{1}{2}(5.2)(36)(8)$

$= 748.8 \text{ m}^3$

$\frac{360}{6} = 60$



$\tan 30 = \frac{3}{a}$

$\frac{a \tan 30}{\tan 30} = \frac{3}{\tan 30}$

$a = 5.2$

16.

$V = l \cdot w \cdot h$

$= 9 \cdot 16 \cdot .3$

$= 43.2 \text{ ft}^3$

$\frac{43.2}{27} = 1.6 \text{ yd}^3 \times 25 = \$40$

0-5 ✓

6-10 ✓

11 ✗

10-7 Volume of pyramids + cones

Volume of a pyramid with base area B and hight h is $V = \frac{1}{3}Bh$

Ex:

Find the volume of a rectangular pyramid with length 11m, width 18m, and height 23m.

$V = \frac{1}{3}Bh$ $\quad B = l \cdot w$

$= 11 \cdot 18$

$= 198\ m^2$

$V = \frac{1}{3}(198)(23)$

$V = 1518\ m^3$

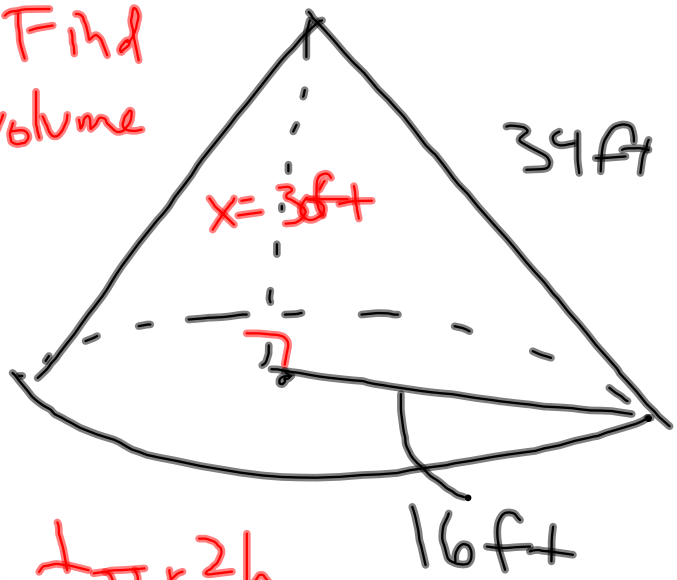
Volume of a cone with radius, r, a height h is $V = \frac{1}{3}\pi r^2 h$

Ex: Find the volume of a cone with radius 7 cm & height 15 cm.

$V = \frac{1}{3}\pi(7)^2(15)$

$V = 245\pi \text{ cm}^3$

Ex: Find the volume



$V = \frac{1}{3}\pi r^2 h$

$= \frac{1}{3}\pi(16^2)(30)$

$= 2560\pi \text{ ft}^3$

$a^2 + b^2 = c^2$

$(16)^2 + x^2 = (34)^2$

$256 + x^2 = 1156$

$-256 \quad -256$

$\sqrt{x^2} = \sqrt{900}$

$x = 30$

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skip 7, 10, 20, 21