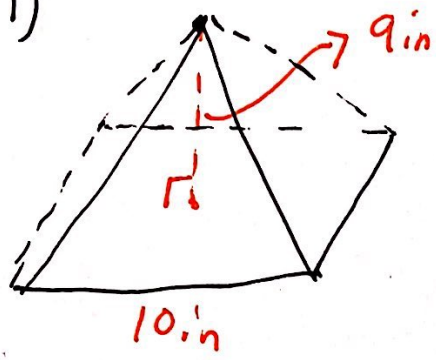
Note book Questions 11-5

1)



Find the Volume. Round to nearest whole number.

$V = \frac{1}{3} B h$

B = area of the base
h = height of object.

h is given a 9in.

The B is a square with side length 10in.

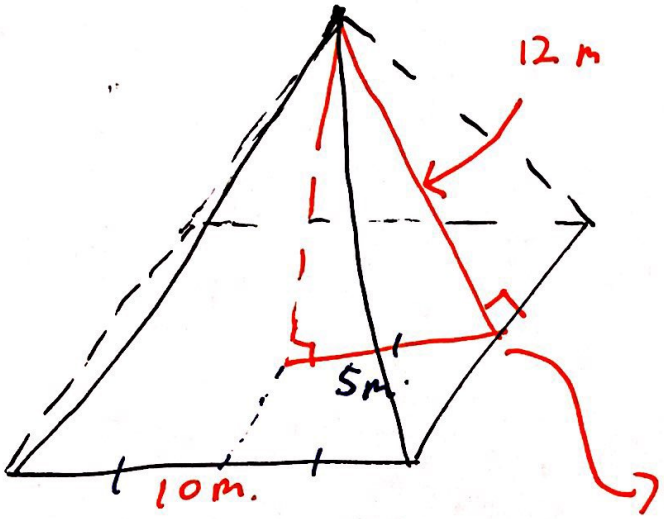
So, $B = (10)^2 = 100 in^2$

Thus, $V = \frac{1}{3} (100 in^2)(9 in)$

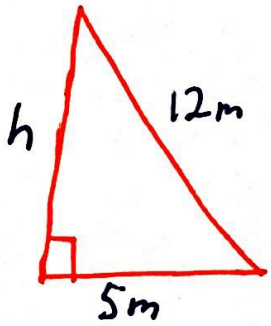
$= \frac{1}{3} (900 in^3)$

$= (300 in^3)$

2)



Let's start by finding the height. Look at the orange triangle



use pythag. thm. ($a^2+b^2=c^2$)

$h^2 + 5^2 = 12^2$

$h^2 + 25 = 144$

$-25 \quad -25$

$h^2 = 119$

$h = \sqrt{119}$ use this

So, $V = \frac{1}{3}Bh$

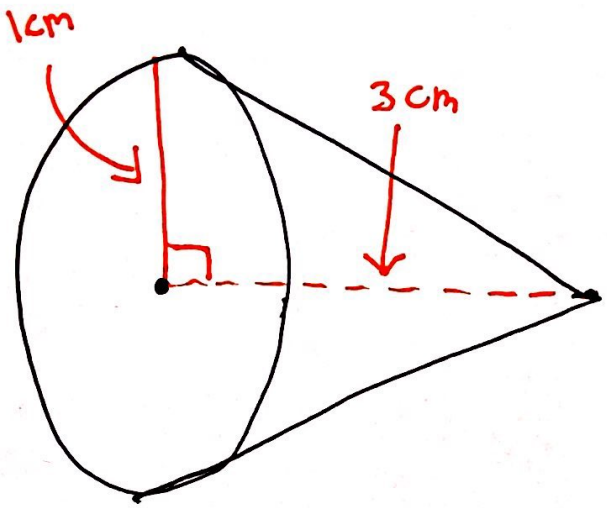
The $B = (10)(10) = 100$

So $V = \frac{1}{3}(100)(\sqrt{119})$

use calc. and Round to nearest whole number and you get

$364\ m^3$

3)



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

You are given $r = 1$ and $h = 3$.

So, $V = \frac{1}{3}(\pi)(1)^2(3)$

$V = \frac{1}{3}(\pi)(1)(3)$

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$V = 1\pi$

$= \boxed{\pi}$