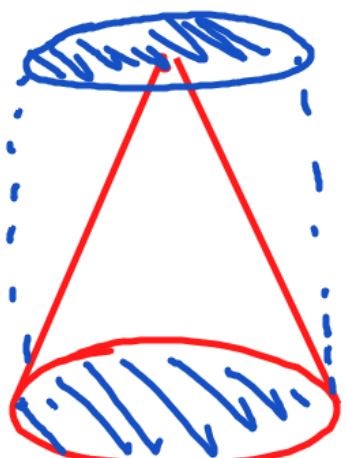
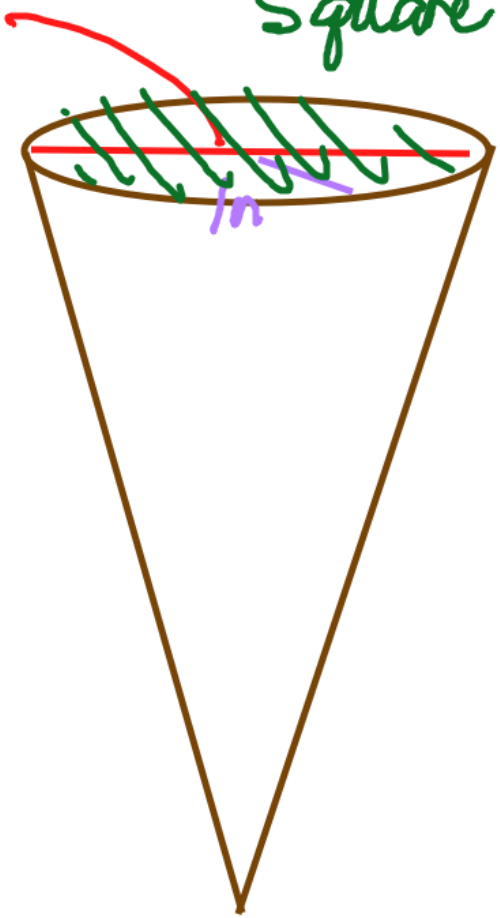
Pyramids + Cones



$$V_{cone} = \frac{1}{3}(\pi r^2 \cdot h)$$

2in

square inches



6in

$V = \frac{1}{3}(\pi \cdot 1^2 \cdot 6)$

$= 2\pi$

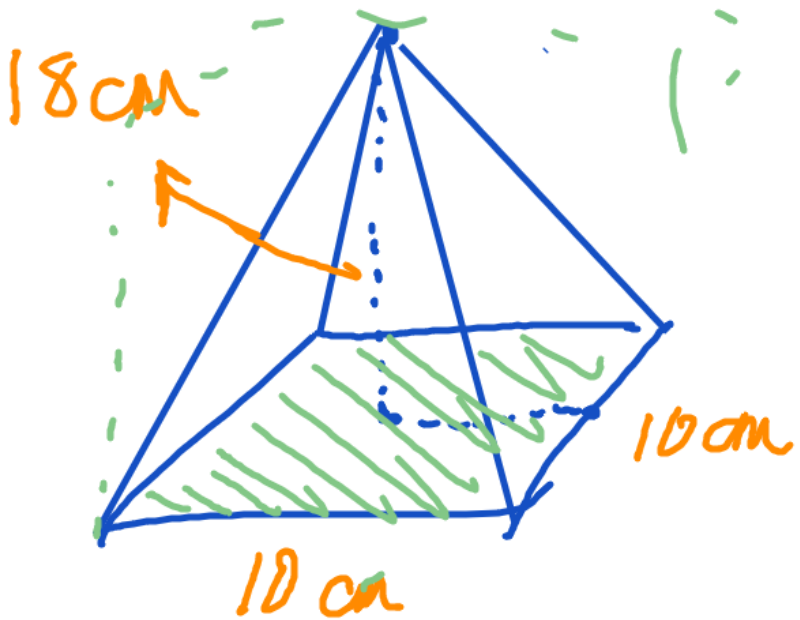
≈ 6.28 in^3

Cubic inches

$V = \frac{1}{2}B \cdot h$

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

Pyramids



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

$$= \frac{1}{3}(100)(18)$$

cm^2 cm

$$= 600 \text{ cm}^3$$

SURFACE AREA

$A = \frac{1}{2} b \cdot h$

$= \frac{1}{2} s \cdot l$

(slant height)

10 cm = s

$4s = p$

$SA = B + 4\text{ TRIANGLES}$

$= B + 4\left(\frac{1}{2} s l\right)$

$= B + \frac{1}{2}(4s)l$

$SA = B + \frac{1}{2} pl$

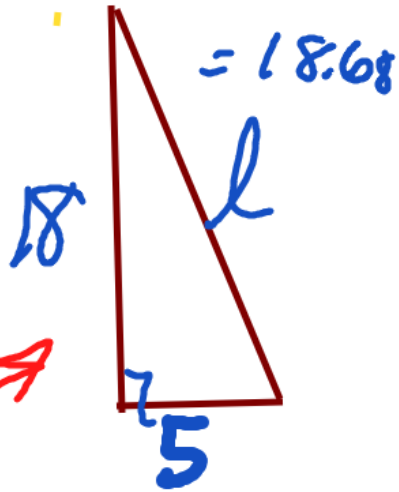
$= 100 + \frac{1}{2}(40)18.68$

$= 473.6\ cm^2$

$5^2 + 18^2 = l^2$

$25 + 324 = l^2 = 349$

$l = 18.68$



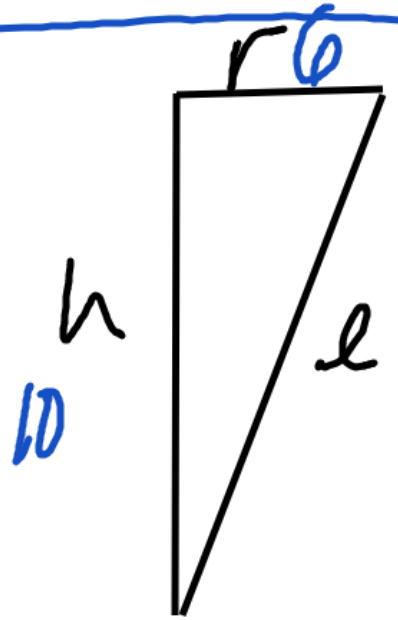
$36\pi + 69.97\pi = 106\pi \text{ in}^2$

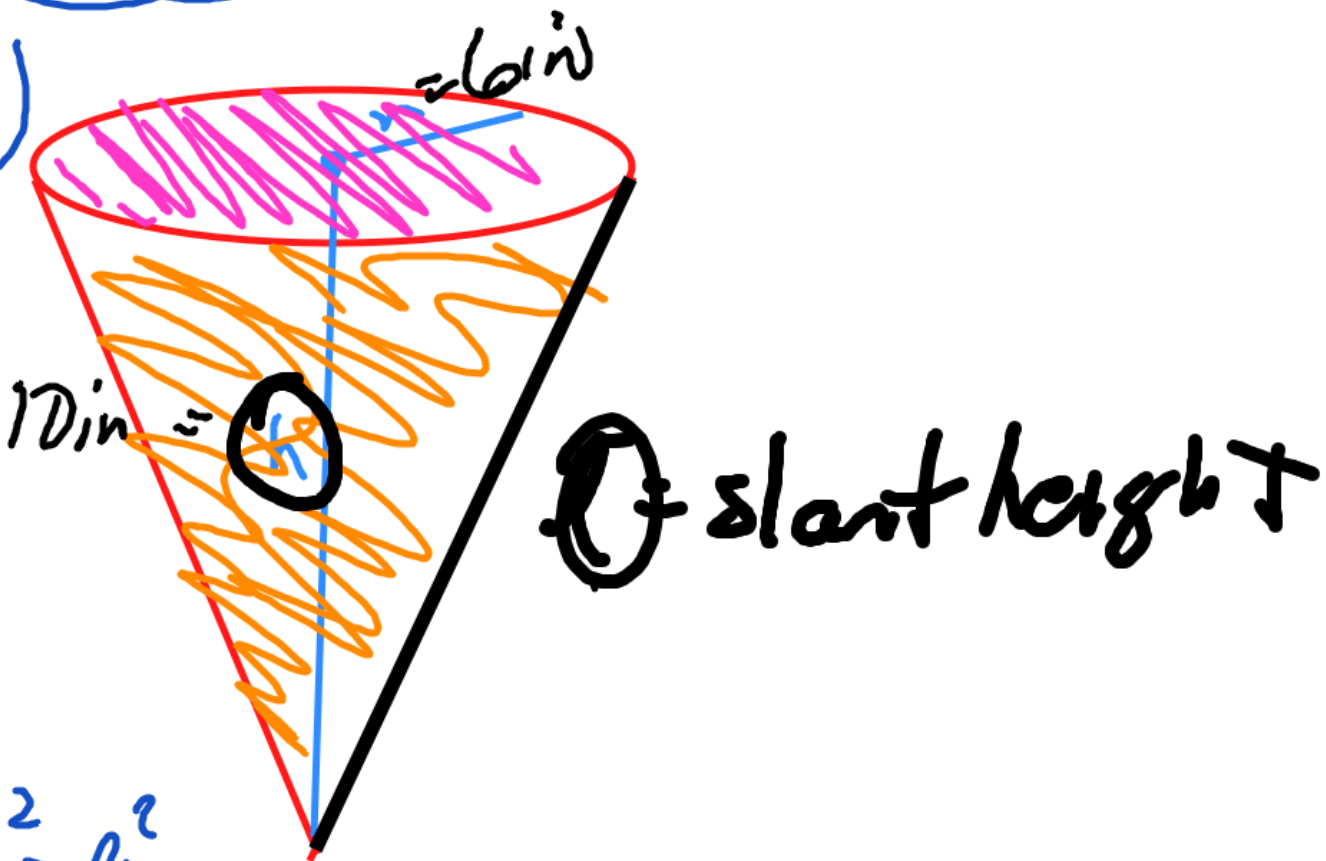
70π

Cone

$SA = \pi(6^2) + \pi(6)(11.66)$

$SA = \pi r^2 + \pi r l$





$6^2 + 10^2 = l^2$

$36 + 100 = l^2 = 136$

$l \approx 11.66 \text{ in}$

Pick one

→ (1) p884 5-10, 17-24

(2) KUTA Surface Area - Pyramid/Cones

→ (3) KUTA Volume - P/C