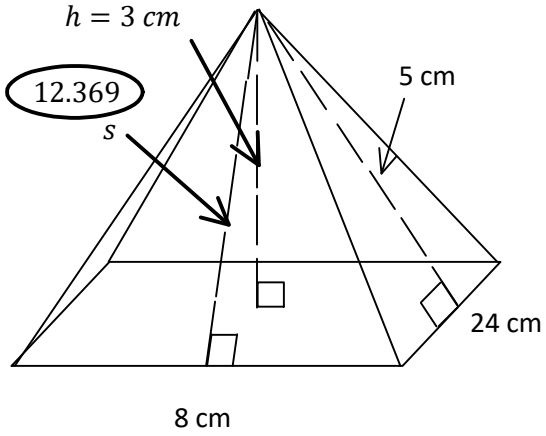
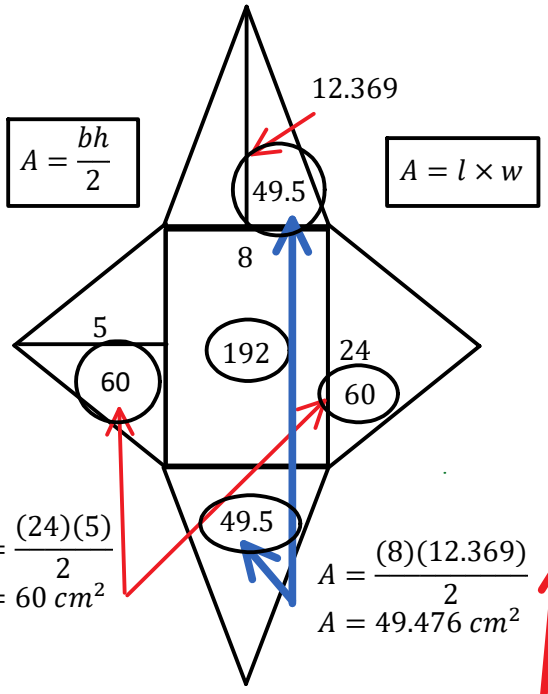
M10 - 2.3 - Rectangular Pyramid Notes

Rectangular Based Pyramid Surface Area and Volume





$A = \frac{(24)(5)}{2}$

$A = 60\ cm^2$

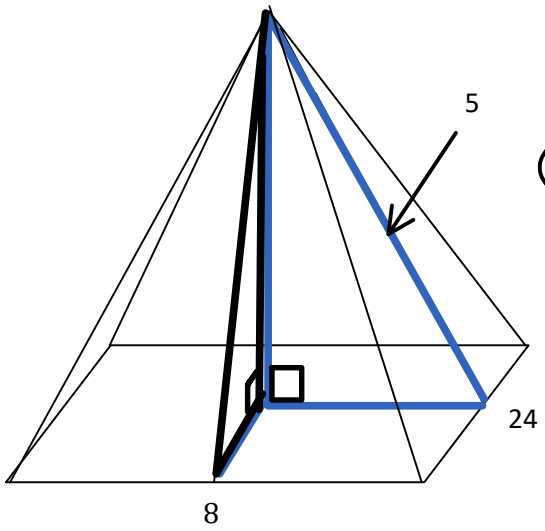
$A = \frac{(8)(12.369)}{2}$

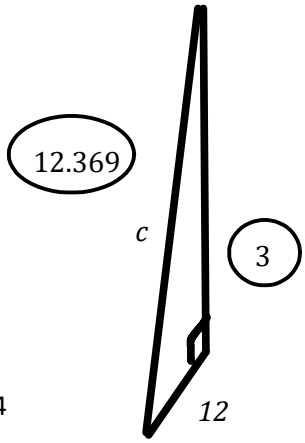
$A = 49.476\ cm^2$

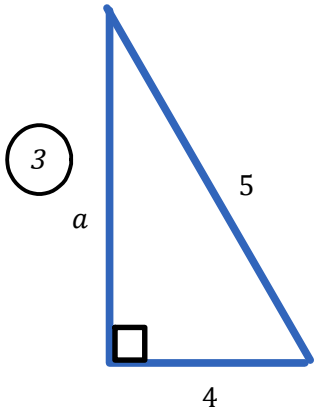
$SA = 60+60+49.5+49.5+192$

$SA = 411\ cm^2$

Pythagoras (Same as Above)







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

$3^2 + 12^2 = c^2$

$9 + 144 = c^2$

$153 = c^2$

$\sqrt{153} = c$

$c = \sqrt{153} = 12.369$

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

$a^2 + 4^2 = 5^2$

$a^2 + 16 = 25$

$-16 \quad -16$

$a^2 = 9$

$a = \sqrt{9}$

$a = 3$

If Corner Height
See page before

$V = \frac{1}{3} \times (area\ of\ base) \times h$

$V = \frac{1}{3} \times (l \times w) \times h$

$V = \frac{1}{3} \times 8 \times 24 \times 3$

$V = 192\ cm^3$