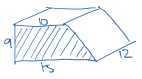
#1) Trapezoidal Prism



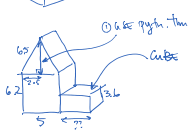
$V = (\text{Area of Base}) \times 12$

$V = \left(\frac{10+15}{2} \times 9\right) \times 12$

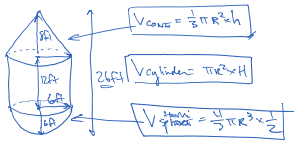
$V =$

#10)

IV)



1d)

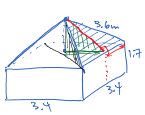


$V_{cone} = \frac{1}{3}\pi R^2 \times h$

$V_{cylinder} = \pi R^2 \times H$

$V_{\frac{1}{2}\text{sphere}} = \frac{4}{3}\pi R^3 \times \frac{1}{2}$

1e)



①

$x^2 + 1.7^2 = 3.6^2$

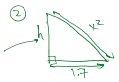
$x^2 = 3.6^2 - 1.7^2$

$h^2 + 1.7^2 = 3.6^2 - 1.7^2$

$h^2 = 3.6^2 - 1.7^2 - 1.7^2$

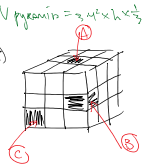
$h =$

②



③ $V_{pyramid} = 3.4^2 \times h \times \frac{1}{3}$ ④ $R.Prism = 3.4^2 \times 1.7$

#8)



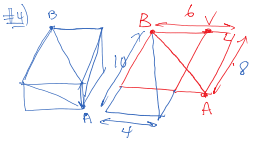
① S.A. $= 9^2 \times 6$
$= 54$

② Removing 4 squares

③ Remove A +4

④ Remove B +2

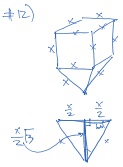
#4)



① $D^2 = 6^2 + 8^2$
$D = 10$

② $D^2 = 10^2 + 4^2$
$D^2 = 116$
$D = \sqrt{116}$

#12)

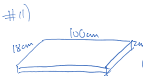


① SQUARES: (S.A.)
$5x^2$

② TRIANGLES (S.A.)
$4 \times \left(\frac{x}{2}\right)\left(\frac{x}{2}\sqrt{3}\right)$

③ $2\left(5 + \sqrt{3}\right) = 5x^2 + 2\sqrt{3}x^2$

#11)



① $V = 18 \times 100 \times 2$
$= 3600\,cm^3$

③ $\text{Density} = \frac{1.62\,kg}{3600\,cm^3} = 0.45\,g/cm^3$

② $V_2 = 12 \times 200 \times 2$
$= 4800\,cm^3$

④ $\text{Weight} = \frac{4800 \times 1.62\,kg}{3600}$
$= \frac{4}{3} \times 1.62\,kg =$

③ $1000\,mm^3 \rightarrow 9\,g$

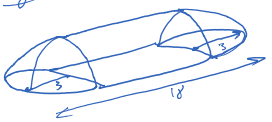
$\text{Density} = 9\,g / 1000\,mm^3$

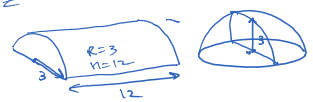
$V = 4cm \times 3cm \times 2cm$
$= 40 \times 30 \times 20\ mm^3$
$= 24000 mm^3$.

$\text{weight} = 24000 \times \frac{9\,g}{1000} =$

$= 24 \times 9\ g$
$= 216\,g$

1g)





$\text{Vol Cylinder} = \frac{\pi R^2 \times H}{2}$ $\quad \text{Vol. sphere} = \frac{4}{3}\pi R^3 \left(\frac{1}{2}\right)$

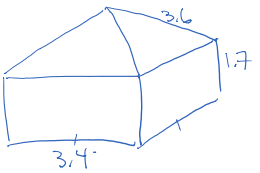
$= \frac{\pi (3)^2 (12)}{2}$ $\quad = \frac{2}{3}\pi (3)^3 \left(\frac{1}{2}\right)$

$= 54\pi$ $\quad = 18\pi$

$\text{Total vol} = 54\pi + 18\pi$

$= 72\pi\ m^3$

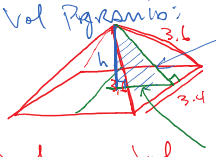
1L)

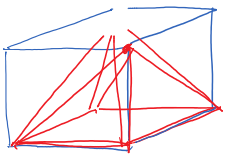


$\text{Vol Prism} = 3.4 \times 3.4 \times 1.7$

$= 19.652\,m^3$

Vol Pyramid:





$\text{Vol Pyramid} = \text{Vol Prism} \times \left(\frac{1}{3}\right)$

① $x^2 + 1.7^2 = 3.6^2$

$x^2 = 3.6^2 - 1.7^2$

$h^2 + 1.7^2 = x^2$

$h^2 + 1.7^2 = 3.6^2 - 1.7^2$

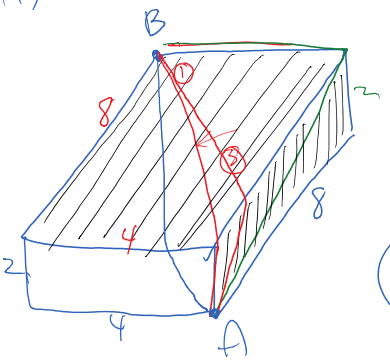
$\sqrt{h^2} = \sqrt{3.6^2 - 1.7^2 - 1.7^2}$

$h = 2.68$

$\text{Vol TOTAL} = 19.652 + 10.32$

$= 29.972\,m^3$

#4)

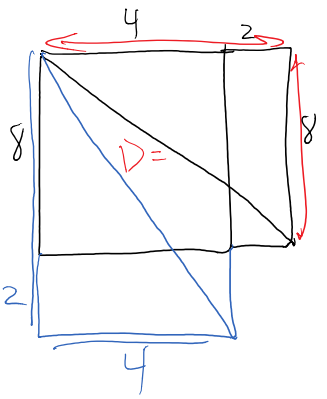


① $D = \sqrt{8^2 + 4^2 + 2}$

$= 4\sqrt{5} + 2$

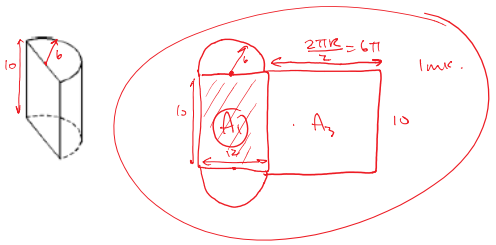
③ $D = \sqrt{6^2 + 8^2}$

$= 10$



④ $D = \sqrt{10^2 + 4}$

$= \sqrt{116}$



$A_1 = 12 \times 10 = 120$

A_2 (circle) $= \pi r^2 = 36\pi$

$A_3 = (6\pi)(10) = 60\pi$

TOTAL S.A $= 120 + 96\pi$

(2) Vol Pyramid

$= \frac{l \times w \times h}{3}$

$= \frac{3.4 \times 3.4 \times 2.68}{3}$

$= 10.32 m^3$

(2) $D = 4 + \sqrt{64+4}$

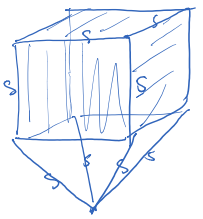
$= 4 + \sqrt{68}$

$= 4 + 2\sqrt{17}$

S.A $= 25(5+\sqrt{3})$

4

#12)

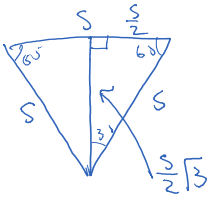


TOTAL S

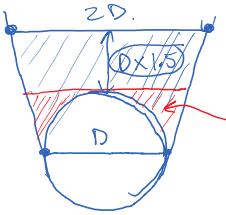
SA =

=

=



14)



% =

$S.A = 25(5+\sqrt{3})$

$= 125 + 25\sqrt{3}$ //

$6(s^2) + 4(s)\left(\frac{s}{2}\sqrt{3}\right)\left(\frac{1}{2}\right)$

$6s^2 + s^2\sqrt{3}$

$125 + 25\sqrt{3}$

$s = 5$ //.

of

of

ue //.