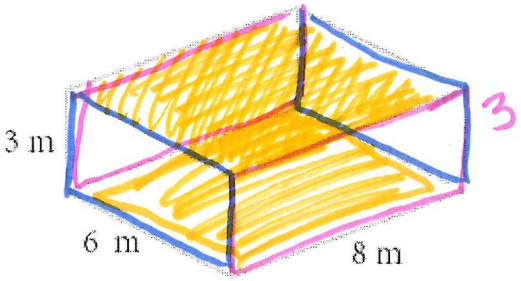
Name: Key

Basic Surface Area and Volume of Prisms In Class Practice

1. Find the surface area of the prism.



SA = Add up all faces and both bases

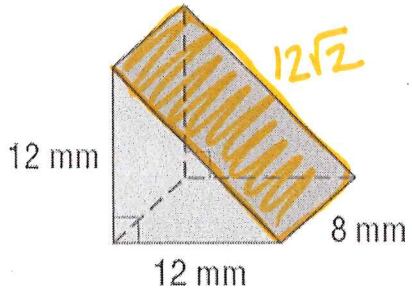
$2(3\times6) = 36$

$2(8\times3) = 48$

$2(6\times8) = 96$

$SA = 180\ m^2$

2. Find the surface area of the prism. Hint: find the missing edge 1st.



SA = Add up all faces and both bases

$2\left(\frac{1}{2}12\cdot12\right) = 144$

$+\ 8\cdot12\sqrt{2} = 96\sqrt{2}$

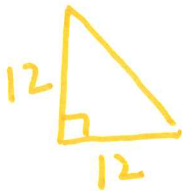
$2(12\cdot8) = 192$

$SA = 336 + 96\sqrt{2}\ mm^2$

$SA \approx 471.765 mm^2$

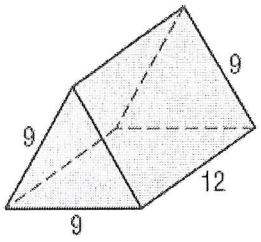
Area of base:

$B = \frac{1}{2}12\cdot12$



Turn the page!!!

3. Find the surface area of the prism.



SA = Add up all faces and both bases

$2\left(\frac{1}{2}9 \cdot 4.5\sqrt{3}\right) = 40.5\sqrt{3}$

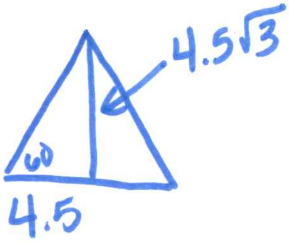
$3(9 \times 12) = 324$

$SA = 324 + 40.5\sqrt{3}$ units^2

$SA \approx 394.148 u^2$

Area of base:

$B = \frac{1}{2}9 \cdot 4.5\sqrt{3}$

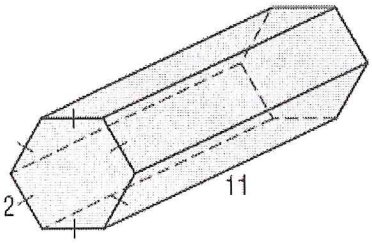


4. Find the volume.

V= Area of the base x height

$V = 6\frac{1}{2} \cdot 2\sqrt{3} \times 11$

$V = 66\sqrt{3}$ units^2



Area of base:

$B = 6\frac{1}{2}2 \cdot \sqrt{3}$