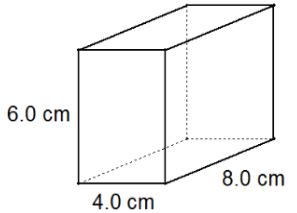
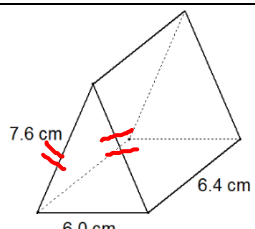
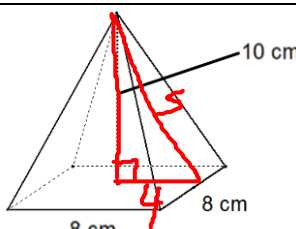
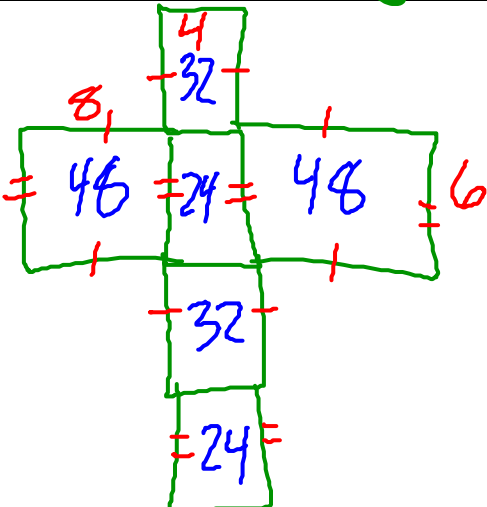
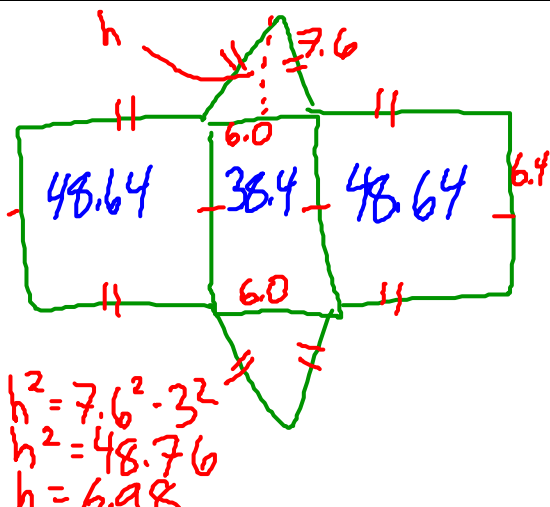
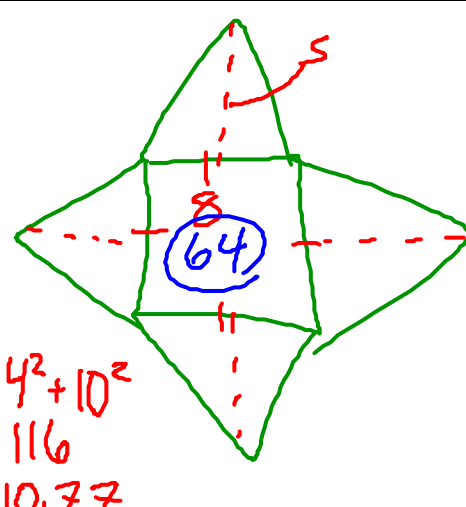
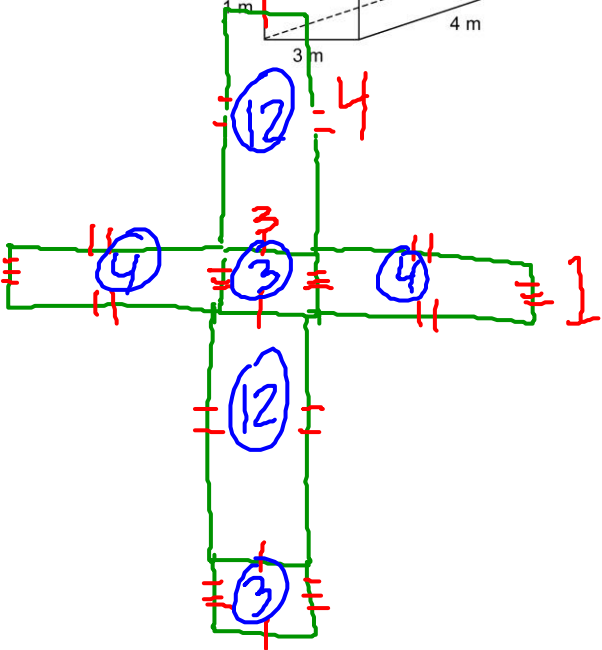
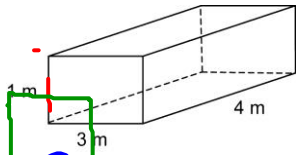


## Surface Area of Prisms and Pyramids

				Geometric Solid					
				Rectangular Prism	Triangular-Based Prism	Square-Based Pyramid			
3-D Sketch									
Number of Faces	6 (all rectangles)			5 (3 rectangles, 2 triangles)			5 (4 equal triangles, one square)		
Net				 <p style="color: red; font-size: 1.2em;"> <math>h^2 = 7.6^2 - 3^2</math>  <math>h^2 = 48.76</math>  <math>h = 6.98</math> </p>			 <p style="color: red; font-size: 1.2em;"> <math>S^2 = 4^2 + 10^2</math>  <math>S^2 = 116</math>  <math>S = 10.77</math> </p>		
Surface Area	$SA = 48 + 48 + 24 + 24 + 32 + 32$ $SA = 208 \text{ cm}^2$			$\text{Area(triangle)} = \frac{6 \times 6.98}{2} = 20.94$ $SA = 48.64 + 48.64 + 38.4 + 20.94 + 20.94 = 177.56 \text{ cm}^2$			$\text{Area(triangle)} = \frac{8 \times 10.77}{2} = 43.08$ $SA = 64 + 4(43.08) = 236.32 \text{ cm}^2$		

1. For each object, draw and label a net, then find the surface area.

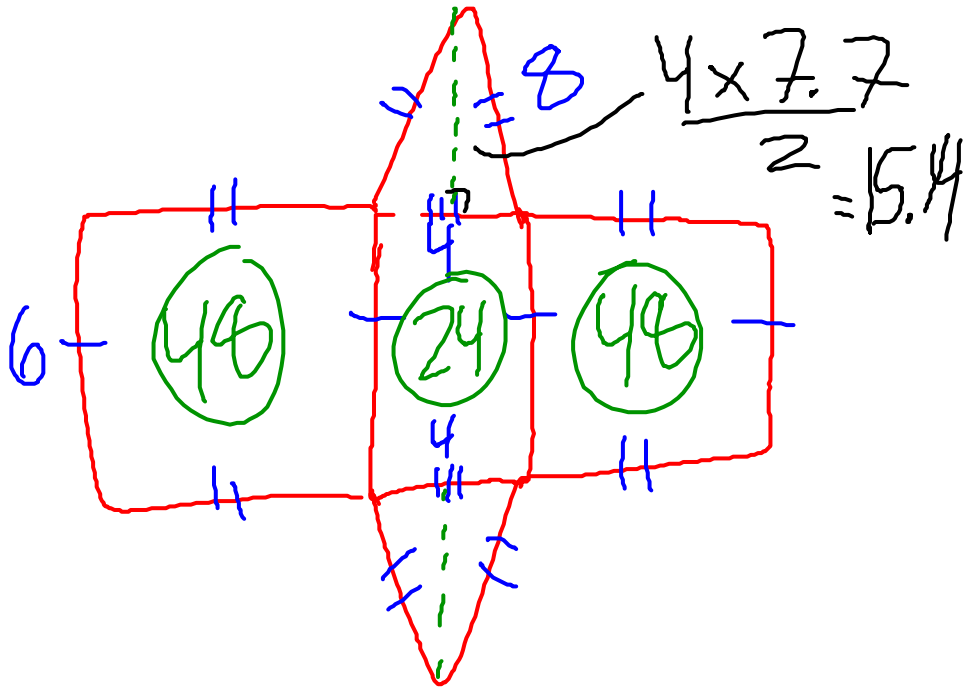
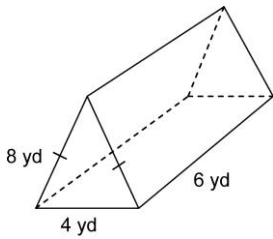
a)



$$SA = 12 + 12 + 3 + 3 + 4 + 4$$

$$SA = 36 m^2$$

b)



$$h^2 = 6^2 - 2^2$$

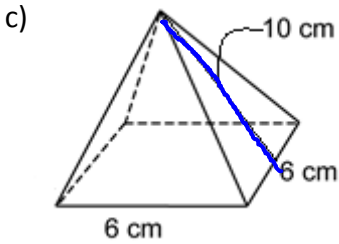
$$h^2 = 64 - 4$$

$$\sqrt{h^2} = \sqrt{60}$$

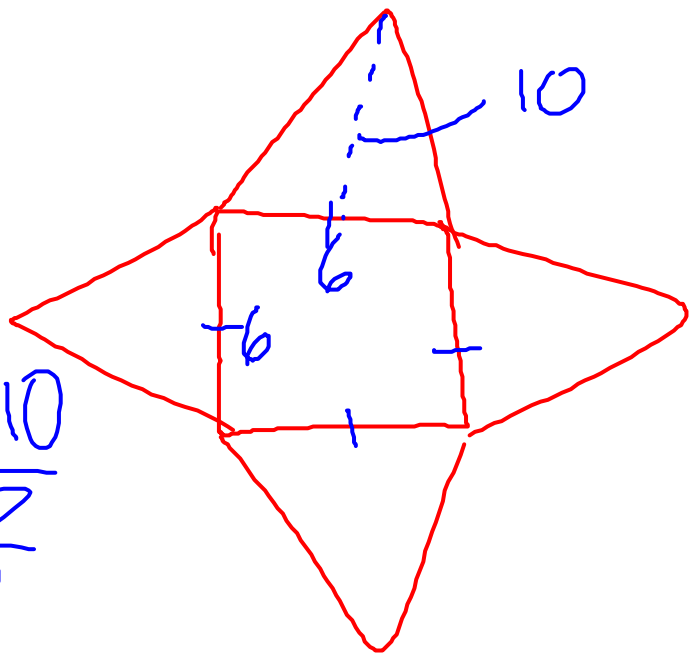
$$\rightarrow h = 7.7$$

$$SA = 48 + 48 + 24 + 15.4 + 15.4$$

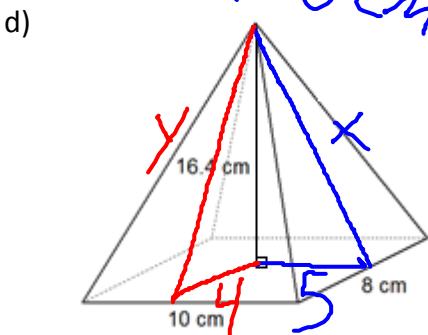
$$SA = 150.8 yd^2$$



$$\begin{aligned} \text{Area}(\text{triangle}) &= \frac{6 \times 10}{2} \\ &= 30 \end{aligned}$$

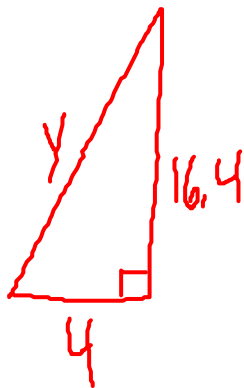
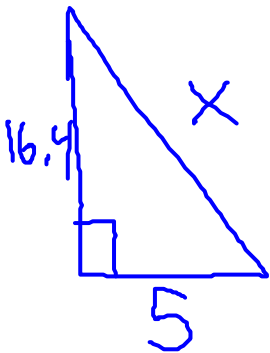
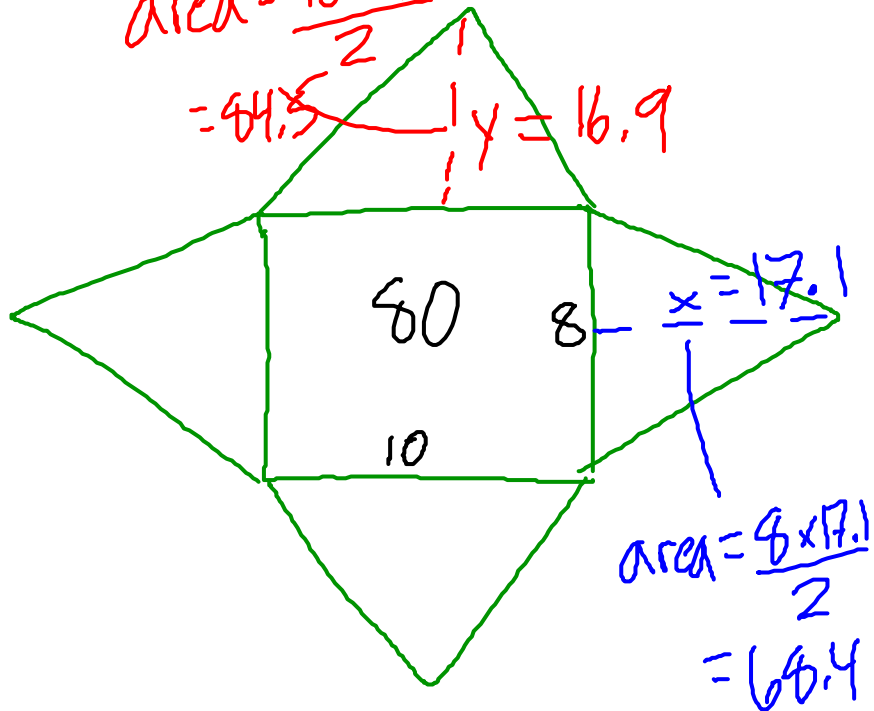


$$\begin{aligned} SA &= 36 + 4(30) \\ &= 36 + 120 \\ &= 156 \text{ cm}^2 \end{aligned}$$



$$\begin{aligned} \text{area} &= \frac{10 \times 16.9}{2} \\ &= 84.5 \end{aligned}$$

$y = 16.9$



$$\begin{aligned} x^2 &= 5^2 + 16.4^2 \\ x^2 &= 25 + 268.96 \\ x^2 &= 293.96 \\ x &= 17.1 \end{aligned}$$

$$\begin{aligned} y^2 &= 4^2 + 16.4^2 \\ y^2 &= 16 + 268.96 \\ y^2 &= 284.96 \\ y &= 16.9 \end{aligned}$$

$$\begin{aligned} SA &= 80 + 84.5 + 84.5 \\ &\quad + 68.4 + 68.4 \\ SA &= 365.4 \text{ cm}^2 \end{aligned}$$