

Geometry

April 27 – May 1

Cover the Tent

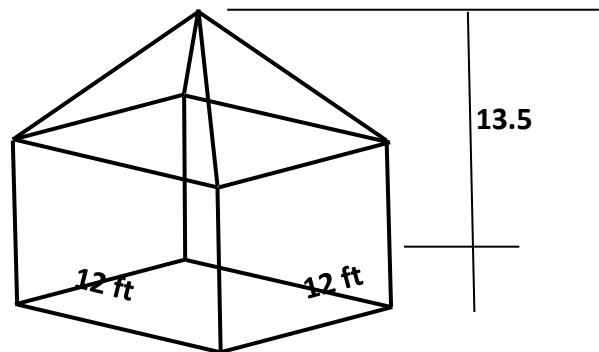
As part of your job, you are responsible to decide how much to spend on the fabric required to cover the tent shown in the picture. In order to make a decision you need to calculate how much fabric is required and the cost of using different fabrics available in the market.

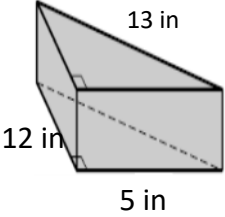
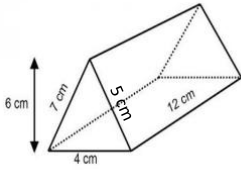
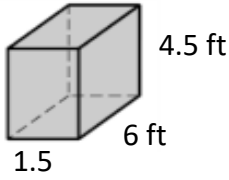
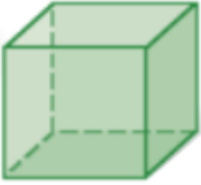
Remember to consider the following:

- There is an opening in the dimension of 7ft by 3ft on the front side to enter into the tent.
- On each of the other three side walls there is a window with the dimension of 3ft by 3ft.
- Consider there is no wastage and you can buy fabric in any desired amount rounded to the whole number of sq.ft.
- Cost of the fabric is \$1.29 per sq. ft. for the medium quality and \$2.49 per sq. ft. for the best quality.
- Make sure your answer is rounded to nearest dollar value for each quality of the fabric.

[Hint:

- Lateral Surface Area of a Prism = Ph , 'P' is the perimeter of the base and 'h' is the height (altitude) of the Prism.
- Lateral Surface Area of Pyramid = $\frac{1}{2} Pl$, where 'P' is the perimeter of the base and 'l' is the slant height of the Pyramid
- To find 'l' use Pythagorean Theorem $a^2 + b^2 = c^2$]



FINDING LATERAL & SURFACE AREA OF RIGHT PRISMS. [Round the answers to the nearest tenths]	Perimeter of Base (P)	Area of Base (B)	Lateral Area L = Ph [h is the height of the prism]	Surface Area S = L + 2B
Triangular Prism 	$P = a + b + c$	$B = 1/2 b \times h$ [h is the height of the triangular base]		
Triangular Prism 	$P = a + b + c$	$B = 1/2 b \times h$ [h is the height of the triangular base]		
Rectangular Prism 	$P = 2(l + w)$	$B = l \times w$		
Square Prism or Cube 	$P = 2(l + w)$	$B = l \times w$		