$\qquad$ Homework - Volume of Right, Rectangular Prisms

Remember Jamal's box options?
Now, let's consider some of the other factors.

His bars must be packed lying flat so they don't crumble. The dimensions of his bars are below.

$V=112 \mathrm{in}^{3}$

$\mathrm{V}=96 \mathrm{in}^{3}$

$\mathrm{V}=125 \mathrm{in}^{3}$

1) Calculate the volume of each City Crave bar.
2) Determine how many bars could fit into each box. You can place the bars in different ways as long as they are lying flat.
3) Do your best to create a box with dimensions that would be ideal for Jamal. Explain why your box is preferrable to the other 3 boxes.
4) Besides the formula $V=L W H$, another formula that exists for right, rectangular prisms is $V=B h$ where $B$ represents the area of the prism base. Explain in words and with math why
 both equations work.
5) If each box costs Jamal $\$ 1.25$, which box would allow him to ship most cheaply? Explain. Challenge - Use "shipping cost per candy bar" calculations in your explanation. (reverse \#4 and 5)
