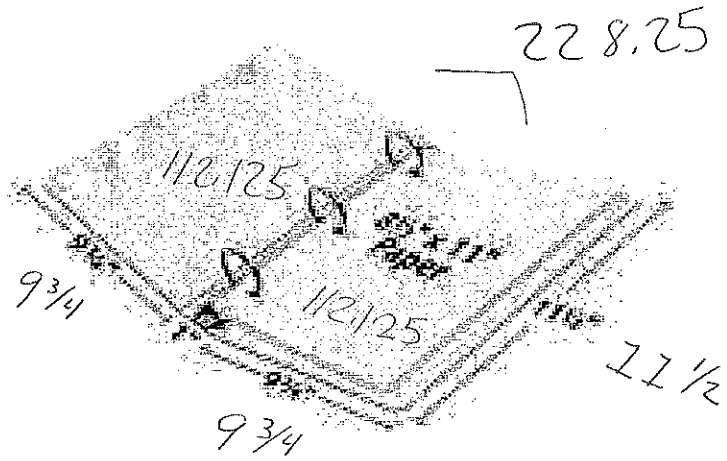
STUDENT MATERIALS

In a Bind for Boxes

School supplies are in high demand right now, but not all the packaging has been designed. As a packaging engineer, you have been hired to create a box to ship individual binders. The dimensions for the binders are below.

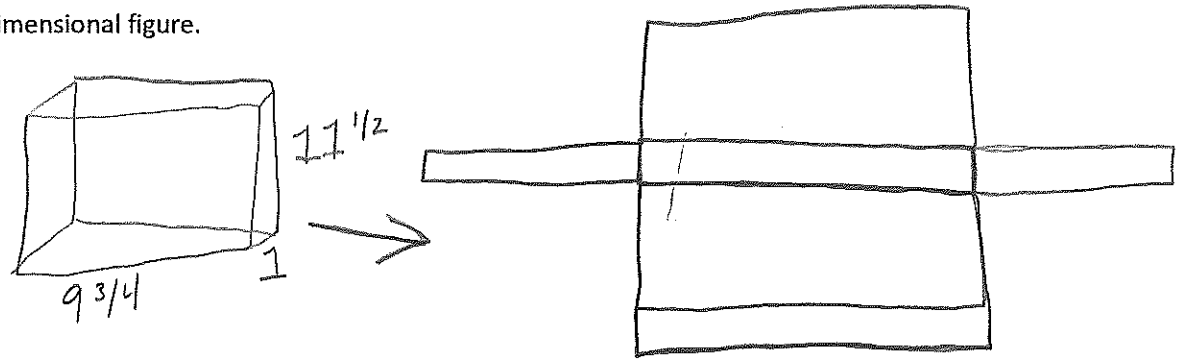


239.75

Dimensions of binder: $9\frac{3}{4}$ inches by 1 inch by $11\frac{1}{2}$ inches

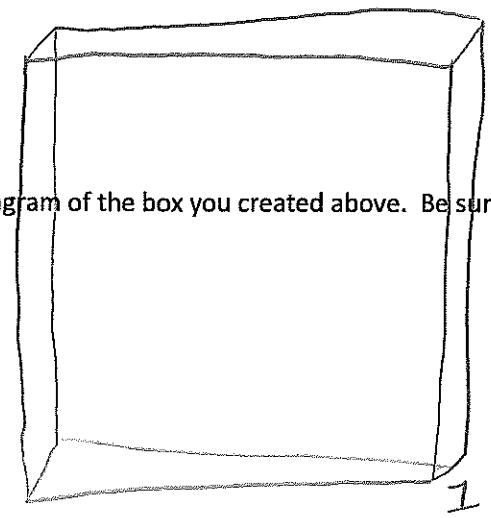
Task 1

Draw a net for a rectangular prism that will fit the binder. The dimensions for the binder are above, so be sure to label the sides. Remember a net must be in one piece and be able to fold into a three-dimensional figure.



Task 2

Draw the 3-dimensional diagram of the box you created above. Be sure to label side lengths.



19.5
23 224.25

Task 3

Determine how much cardboard would be needed for the box you designed in square inches.

266.75 Sq in

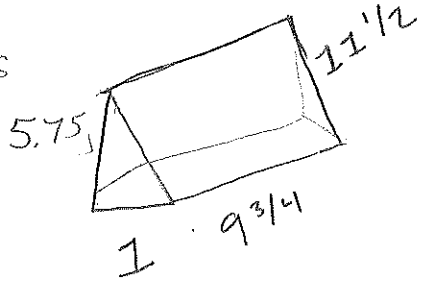
Task 4

Now, design another box using a different 3-dimensional shape. Be sure to create the box for the same binder pictured in Task 1. Draw and label the diagram.

17.5 = Sides Both

224.25 = Long Sides

Bottom = 9.75



Task 5

How many square inches of cardboard would be needed for the Task 4 design? Show your work.

← On the other page

245.5 sq.in²

Task 6

Which of your two boxes should the company choose to send the binders? Why? Explain your reasoning.

The first box because it has more Simillar dimensions than the Second one. Also the binders are mainly made of Squares and the first shape is made out of mainly Squares too.