

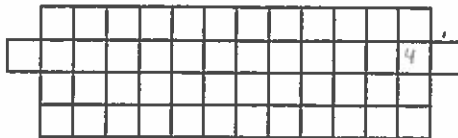
Researching Box Designs

Name _____

Suppose that you and your partner are box designers for the Ooey-Gooley Candy Company. Ooey-Gooley makes caramels and packages them 12 to a box in rectangular boxes that are sold in retail stores. Ooey-Gooley makes boxes with lids. The company wants you and your partner to make all the possible styles of rectangular boxes that will hold exactly 12 caramels, with no space left over. Then the two of you must select one design to recommend for Ooey-Gooley's caramels.



1. Working with grid paper, make a net of each possible box. Cut it out, fold it, and tape the resulting box together.
2. Use the chart to help you organize your research on the boxes.
The first row has been filled in as a sample. It shows one possible net. Can you find another?

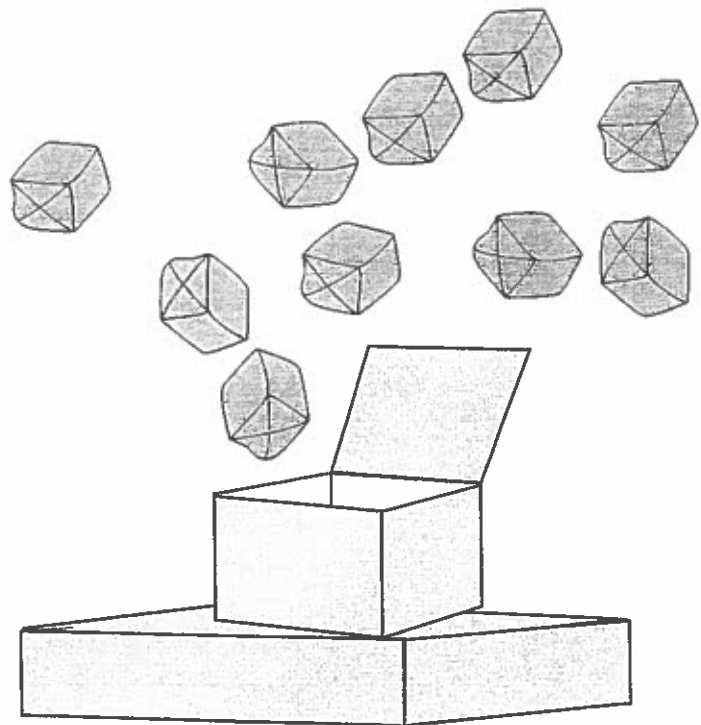
Dimensions of the box	Volume of the box	Sketch of a net of the box	Surface area of the box
12 x 1 x 1	12 cubic units		50 square units

"Researching Box Designs" is part of the activity Wrap It Up! which has been adapted with permission from Lappan, Glenda, James T. Fey, William M. Fitzgerald, Susan N. Friel, and Elizabeth Difanis Phillips, *Filling and Wrapping: Three Dimensional Measurement*, Connected Mathematics Program (Palo Alto, Calif.: Dale Seymour, 1998), p. 16.

Researching Box Designs (continued)

Name _____

3. The Ooey-Gooney Candy Company has asked you and your partner to make a presentation in which you will show a model of the box that you are recommending. You must also explain your reasons for your choice. What will you report to Ooey-Gooney?



4. Use tag board or poster board to make a presentation model of the box that you are recommending, and use markers or other materials to decorate it.