

Investigations in Teaching Geometry

Hands-On Exploration #2

Candy sales at Choc Full Chocolate Company have skyrocketed. As a result, Choc Full Chocolate Company is designing fancy new boxes to be used in selling its candies. The boxes will be made from a piece of cardboard that is 10 inches by 10 inches. The box company will simply cut a section out of each corner and fold up the sides to make this new box. Mr. I. M. Fattening thinks this is a great idea and has sent an order off to the local box company.

The box company is faced with a serious problem - they do not know how much to cut out of each corner. When they called Mr. Fattening of Choc Full he replied, "Just make the biggest box possible!"

You are an employee of the box company. You have been assigned the task of determining the dimensions of the box for the Choc Full Chocolate Company. Use sheets of grid paper, scissors, and tape to experiment and find the box that will hold the most. Prepare a report that explains your process and supports your findings.

Materials needed:

- Inch grid paper that will accommodate a 10 inch by 10 inch square—6 to 8 sheets per pair of students.
- Scissors
- Tape
- Inch cubes, 10--20 per pair of students

To purchase the grid paper needed for this exploration, click on one of the vendors below:

- [Office Max](#)
- [Office Depot](#)
- [Staples](#)