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Cutting Corners

Essential Question: What size cut will maximize the volume of a rectangular prism?

1. Make a conjecture:

I think the cut will maximize the volume of the box because
I think the model will fit the data we gather best because

2. Consider the data collected by our class.

I notice	I wonder

- a. What is the maximum volume found?
- b. What are the dimensions of the rectangular prism with the maximum volume?

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This material accompanies a videotaped lesson on Inside Mathematics (www.insidemathematics.org): Cutting Corners: Public Lesson. Austin, Texas: the Charles A. Dana Center at The University of Texas at Austin.

3. Revisit and revise your conjecture: Did your conjecture change? Why?

I think the	_ cut will maximize the volume of the box because	
I think the	model will fit the data we gather best because	

- 4. Grab a computer:
 - a. Log in to Desmos.
 - b. Create a scatterplot and PAUSE to discuss the following:

What type of function could we use to model the data?

Resource Manager: Call over Ms. Burke to share your group's thinking and to get instructions for the next steps.

5. **Revisit and revise your conjecture:** Revisit your conjecture with partner before writing. Was it accurate? How would you change it based on what you know now?

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