## **Cutting Corners**

## **Group Product**

Facilitator: Read your job description and be sure to follow it!

**Recorder/Reporter:** Your job is to record your group's responses to the following.

- 1. Use the regression feature to find a function to model the data.
- 2. Copy down the equation that best fits your data.
- 3. Use your model to find the maximum volume of the box.
- 4. What size cut from each corner should be used in order to maximize the volume?
- 5. What are the x-intercepts? Interpret the meaning of each in the context of this situation.

6. What are the possible values for the height of the box? Why does that make sense?

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.

7. What part of this worksheet was easiest for your group?

8. Where did your group struggle the most?

Engage NY. "Lesson 16: Modeling with Polynomials – An Introduction." Part of Algebra II Module 1, Topic B, Lesson 16, in Algebra II. Modified by the Charles A. Dana Center at The University of Texas at Austin.

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