## Exit Ticket

For a fundraiser, members of the math club decide to make and sell t-shirts. They are trying to decide how many t-shirts to make and sell at a fixed price. They surveyed the level of interest of students around school and made a scatterplot of the number of t-shirts sold (x) versus profit shown below.



- 1. Identify the y-intercept. Interpret its meaning within the context of this problem.
- 2. If we model this data with a function, what point on the graph of that function represents the number of t-shirts they need to sell in order to break even? Why?
- 3. What is the smallest number of t-shirts they can sell and still make a profit?
- 4. How mnay t-shirts should they sell in order to maximize the profit?
- 5. What is the maximum profit?

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.

Name: \_\_\_\_\_

Period: \_\_\_\_\_

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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