# **E2** Marketing Goosepimples

Heath was destined to become a heavy metal musician ever since he was three-years-old, when his mother's worn-out Deep Purple album got stuck on the same guitar solo for two hours after she had dozed off on the living room couch. As the guitar wailed, so did Heath on his toy xylophone until he was worked up into such a head-banging frenzy that he smashed the instrument on the floor in a display worthy of the wildest rockers. Two years later, Heath's kindergarten teacher became concerned because he kept humming a loud but somewhat recognizable guitar solo in the background every time they said the pledge of allegiance and because he had traded all his crayons away for black ones. Heath's parents assured the teacher that Heath was just exhibiting signs of his future creative genius as a heavy metal musician, and they bought Heath his first guitar. It was yellow with plastic strings that wouldn't tighten and a crank on the side that played a music box version of "Mary Had a Little Lamb." Heath spray-painted the guitar black, put a few dents in it, and wrote his first song: "Mary Had a Little Lamb Cooked Medium Rare." He began giving lip-synched, air-guitar concerts from the family room coffee table for his friends sitting on the floor below.

By the time Heath entered high school, he had led three different garage bands to neighborhood stardom with hits such as, "The Dog Ate My Homework & My Brother, Too" and "Dad, You're Grounded!" His current band, Mother Goosepimples, carries on the tradition of Heath's early songwriting experiences by specializing in raucous, high-energy versions of nursery rhyme classics. Although they don't get many bookings at weddings with songs like "Humpty Dumpster" or "Jack & Jilted," Mother Goosepimples has gathered a sizable teenage following. The band is currently bidding to play at a local high school's junior prom, and they would like your help in choosing the pricing strategy that will land the job and make the most money.

**Project Summary:** For each pricing strategy the band is considering, you will write an equation relating money earned to number of people attending the dance. You will use these equations to draw graphs that will help you choose the best strategy.

# **Materials**

You will need a Graphing Matter Worksheet (Type E) and a calculator.

### **Directions**

- 1. The band is considering four different pricing strategies. Strategy A is the simplest: charge a flat fee of \$100, no matter how many people show up at the dance. In the other three strategies, the band's fee will come partly from money taken in at the door for tickets. For instance, Strategy B is for the band to receive a base fee of \$50.00 plus an additional \$0.50 for each person who comes to the dance. Using this strategy, how much would the band be paid if 50 people attended the dance? 100 people? 150 people?
- 2. Describe in words how the band's fee under strategy B can be calculated from the number of people attending.

- 3. Let s assign variable names. Let x = the number of people attending the dance and y = the band's fee. Using these variables, the equation for strategy A is: y = 100. Notice that in this equation the band's fee does not depend on the number of people attending. Use your answer from question 2 to write an equation describing strategy B. Write the equations for strategy A and B on your worksheet.
- 4. Below are the other two strategies the band is considering. Add an equation for each to your worksheet.
  - Strategy C: The band will receive no base fee but will be paid \$1.00 for each person who attends the dance.
  - Strategy D: The band will pay the school \$75.00 for the privilege of performing but will collect \$2.00 for each person who attends the dance.
  - Complete the mini-graph on your worksheet. Use a different color for each of the four strategies. Ask the teacher to initial the work you have done so far.
- 5. Make a table for each strategy in which to record values for x and y. Use your equations to fill in the table with enough values to make a graph. (Hint: How many points do you need in order to determine a straight line?) Your highest value for x should be 150 since this is the highest attendance of any dance at this school.
- 6. Use four different colors to graph your data on a single graph. Make sure the horizontal scale runs from 0 to 150 people and the vertical scale runs from -\$50 to \$250 (as shown to the right).
- 7. Which strategy would be best if 50 people attended the dance? 80 people? 110 people?
- 8. For what number of people attending would strategies D and C be the same? Strategies B and C?
- 9. Brainstorm with your partner(s) to list at least four things that should be considered when choosing a pricing strategy.
- 10. Here are the attendance figures for this school's last eight dances: 98, 105, 57, 77, 149, 110, 90, and 137 people.
  - a. Use a new color to draw <u>thin</u> vertical lines on the graph at these eight values for the number of people attending.
  - b. Decide with your partner(s) which strategy you recommend that Goosepimples use. List your reasons for your decision, and be prepared to present your thoughts to the class.

# Algebra's Always Good for a Graph or Two (Optional)

- 11. Identify the slopes of each of the lines you graphed.
- 12. Explain what the slope has to do with the band's fee.
- 13. Explain what the *y*-intercept has to do with the band's fee.

# Just for Laughs

#### Choose one:

- 1. Write the lyrics to one of Heath's songs mentioned in the story.
- 2. Draw Heath's band with you and your partner(s) as the other musicians.
- 3. Hold a contest to see who in your group can play the "coolest" imaginary guitar.

Band's Fee

VS.

at dance

150

people