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| * 1.1.4-Finding and Generalizing Patterns-How can I generalize a pattern? * **1-26.** Use the class graph to answer the questions below.   1. Are there any dots that you think show *human error*?  That is, are there any dots that appear to be graphed incorrectly or that someone may have measured incorrectly?  Explain why or why not.   2. Is a person’s reach related to his or her height?  That is, what seems to be true about the reach of taller people?  Explain.   3. Since a person’s reach depends on his or her height, the reach is called the **dependent** quantity (or variable) and the height the **independent** quantity (or variable).  Examine the class graph of the data from problem 1-25.  On which axis was the independent data represented?  On which axis was the dependent data represented?   4. Is there a trend in the data?  How can you generalize the trend?   **1-27.** Everyone is complaining about how the teacher made the class graph.   * 1. Jorge is confused about how the teacher decided to set up the graph.  *“Why is it a 1st-quadrant graph instead of a 4-quadrant graph?”*  Answer Jorge’s question.  In general, how should you decide what kind of graph to use?   2. Lauren is annoyed with the *x*-axis. “*Why didn’t the teacher just use the numbers from the table*?” she whined.  “*Why count by twenties*?”  What do you think?   3. Hosai thinks that the graph is TOO BIG.  “*The dots are all mashed together!  Why did the teacher begin both the x- and y-axes at zero?  Anyone that short would never be allowed on the roller coaster.  Why not just start closer to the smallest numbers on the table?*” she asked.  What do you think?   4. Sunita says the graph is TOO SMALL!  “*If we’re supposed to be using this data to check if the coaster is safe for really tall people, the graph has to have room to graph tall people’s dots too.*”  Do you agree?  If so, how much room do you think is needed?   **1-28.** Using all of your ideas from problem 1-27, make your own graph that will help you determine whether the ride is safe for very tall people. An example of a “very tall” person is Yao Ming, who retired from the NBA in 2011. He was one of the tallest NBA players in history, measuring 7 feet 6 inches (about 228.6 cm) tall. Is the roller coaster safe for him? Explain.  **1-29.**  Is the roller coaster safe for all riders?  Prepare a poster that shows and justifies your team’s answer to this question.  Every team poster should include:   * 1. A large, clear graph.   2. A complete, clear, and convincing explanation of why your team thinks the ride is or is not safe for all riders. |