# Study Guide and Intervention

7MR2.5, 7SDAP1.2

## *Problem-Solving Investigation: Use a Graph*

Example 1 The graph shows the results of a survey of teachers' ages and grade levels taught at school. Do the oldest teachers teach the highest grade level?

Study the graph. The teachers who are oldest are plotted towards the top of the graph. The teachers who teach the highest grade levels are plotted towards the right of the graph. The graph shows that the points towards the top of the graph are spread out from left to right randomly. The graph shows that the oldest teachers teach all grade levels, not just the highest grade levels.
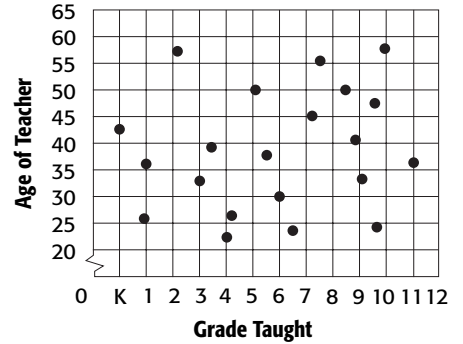
Example 2 The graph shows the results of a survey of students' favorite sports. How many students were surveyed?

Study the graph. Each bar on the graph represents the number of students who voted for that sport as their favorite. In order to find the number of students surveyed, add the amount from each sport.
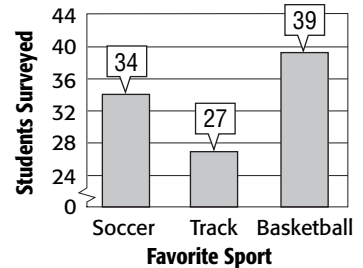
soccer + track + basketball = total students surveyed   Write an equation.
34 + 27 + 39 = total students surveyed   Substitute.
100 = total students surveyed   Add.

There were 100 students surveyed.

Exercises

Use the graph at the right. Each point on the graph represents one person in a group that is training for a long-distance bicycle ride. The point shows the number of miles that person cycles each day and the number of weeks that person has been in training.

1. What is the highest number of miles bicycled each day by any person in the group? How many weeks was this person in training?

2. Does the number of miles bicycled each day increase as the number of weeks in training increases?