# Finding a Line of Best Fit
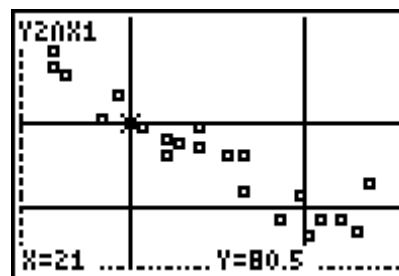**ID: 8192**

Name _____

Class _____



*In this activity, you will explore:*

- *Creating a scatter plot representing resting heart rates versus age.*
- *Graphing vertical and horizontal lines to show Q1 and Q3 for both the ages and the heart rates.*
- *Using the vertices of the Q1 and Q3 lines to calculate a line of best fit and graph it.*

Enter the 21 data points shown in the screens below in the **AGE** and **RHR** lists.



Plot this data as a scatter plot.

- What are Q1 and Q3 of the ages? Graphs these as horizontal lines.

- What are Q1 and Q3 of the heart rates? Graph these as vertical lines.

- Where do these lines intersect? Write the coordinates of the four points.

- Identify the diagonal across the center rectangle that follows the direction of the points. What two intersection points does it connect?

- Use these two points to write the equation for the line that will form the diagonal using the point-slope form.

Graph the equation.