

Name

6-7A

Lesson Master

Questions on SPUR Objectives
See pages 392–395 for objectives.

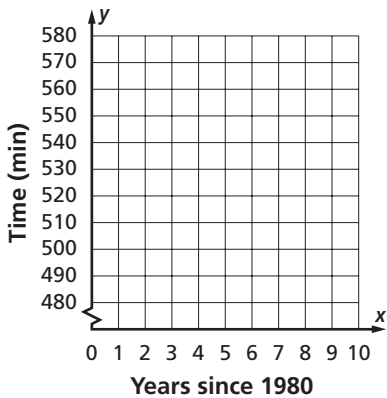
USES

Objective G

In 1-6, use the table below of the winning times for the men’s Ironman World Championship triathlon in Hawaii from 1980 to 1989. (Two races were held in 1982.)

Year	1980	1981	1982	1982	1983	1984	1985	1986	1987	1988	1989
Time (min)	564.55	578.48	559.68	548.38	545.95	534.33	530.9	508.62	514.22	511.00	489.25

1. Draw a scatterplot of this data, with x being the number of years since 1980, and y the winning time in minutes.



2. Use your calculator to find an equation for the regression line for these ordered pairs. Round values in the equation to the nearest hundredth.
3. Graph the regression line on your scatterplot. Which time deviates the most from the equation?
4. According to your equation, by about how many minutes does the winning time improve each year?
5. Use your equation to predict the winning time in 2005.
6. The winner of the 2005 race was Faris Al-Sultan of Germany, who finished the race in 8 hours, 14 minutes, 17 seconds. Did he finish faster or slower than your equation predicted? Why do you think this happened?