

Name

6-7B Lesson Master

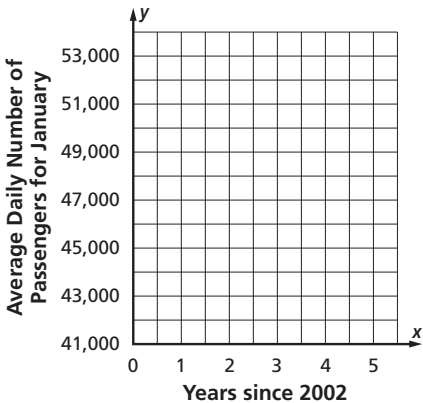
Questions on SPUR Objectives
See pages 392–395 for objectives.

USES

Objective G

In 1–7, use the table at the right of the average daily number of passengers in January at Baltimore/Washington International Thurgood Marshall Airport.

1. Draw a scatterplot of these ordered pairs with x representing the number of years since 2002 and y representing the average daily number of airline passengers for January.



Year	Average Number of Passengers per Day
2002	41,919
2003	43,313
2004	47,184
2005	46,947
2006	47,546

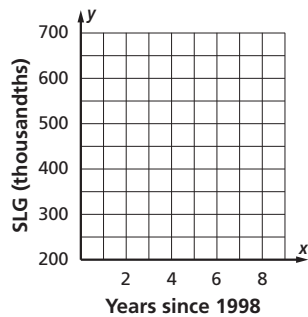
2. Use your calculator to find an equation for the regression line for these ordered pairs.
3. Graph the regression line on your scatterplot. By how much does the 2005 average deviate from the linear regression equation's predicted average for that year?
4. According to your equation, by about how many passengers does the daily average for January increase by each year?
5. Use your equation to predict the average daily number of passengers in January, 2010.
6. Use your equation to find what year the average daily number of airline passengers in January will be about 51,300.
7. Is the average daily number of passengers for January, 2006, greater or less than what the equation predicted? Why do you think this happened?

Name

In 8–13 use the table below of the slugging percentage (SLG) for Aramis Ramirez for each season from 1998 to 2006. In baseball statistics, the slugging percentage is a measure of the power of a hitter.

SLG = $\frac{\text{number of bases gained with hits}}{\text{number of times at bat}}$

8. Draw a scatterplot of these ordered pairs with x representing the number of years since 1998 and y representing the slugging percentage.



Season	SLG
1998	.351
1999	.250
2000	.402
2001	.536
2002	.387
2003	.491
2004	.448
2005	.578
2006	.568

9. Use your calculator to find an equation for the regression line for this data.
10. Graph the regression line on your scatterplot. In which year does the SLG deviate the most from the equation?
11. According to your equation, by about how much does Ramirez’s SLG increase each year?
12. Use your equation to predict Ramirez’s SLG in 2007.
13. Was Ramirez’s SLG for 2006 greater or less than your equation predicted? Why do you think this happened?