5-7 Scatter Plots & Trend Lines

Name:_____

Make a scatter plot for each set of data.

5. roommates: 3 2 3 2 4
   Rent (per person): $400 $900 $500 $700 $300

6. Hits: 7 8 4 11 8 2 5 9 1 4
   Runs: 3 2 2 7 4 2 1 3 0 1

Make a scatter plot for each set of data. If possible, draw a trend line and describe the trend.

7. **Life Expectancy**

Current Age (yr)	10	15	20	25	30	35	40	45
Life Expectancy (yr)	67.4	62.5	57.7	53.0	48.2	43.5	38.8	34.3

SOURCE: U.S. Census Bureau. Go to **PHSchool.com** for a data update. Web Code: asg-9041

8. **Farm Sizes in the United States**

Number of Farms (millions)	6.30	6.10	5.39	3.96	2.95	2.44	2.15	2.17
Average Size (acres)	157	175	216	297	373	426	460	434

SOURCE: U.S. National Agricultural Statistics. Go to **PHSchool.com** for a data update. Web Code: asg-9041

9. **Guided Problem Solving** Estimate the world production of oil when the United States produced 12% of the world's oil.
   - Draw a scatter plot and a trend line.
   - Find 12% on the vertical axis. Move horizontally to the trend line. Then move down to the horizontal axis.

Oil Production 1960–2000 (billion barrels)

World Oil Production	U.S. Percent of World Oil Production
45.9	21
52.8	16
59.9	13
68.3	9
72.5	7

SOURCE: U.S. Energy Information Administration

For each topic, decide which type of trend a scatter plot of the data would likely show. Explain your choice.

10. age of owner and number of pets currently owned

11. outdoor temperature and layers of clothing

12. **Writing in Math** Do you think predictions made from a trend line will always be accurate? Explain.

13. **a.** **Baseball** Make a scatter plot for the data at the right.
b. Draw a trend line.
c. How many hits would a player be expected to have with 500 at-bats?
d. How many at-bats would a player with 250 hits have?

Name	At-Bats	Hits
T. Hunter	564	147
I. Rodriguez	442	136
C. Beltran	617	189
G. Anderson	672	194
R. Sierra	344	100
B. Daubach	407	107
J. Liefer	254	65

10._____

11._____

12._____

13c._____ 13d._____