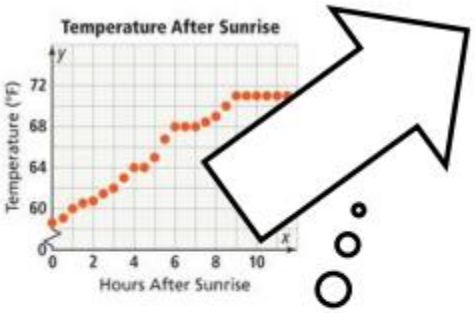
3.6 SCATTER PLOTS

Name:_____

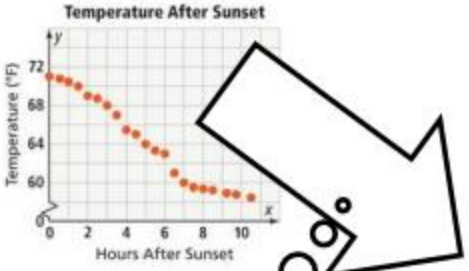
Date: _____

Example 2: Understanding Correlations Coefficients



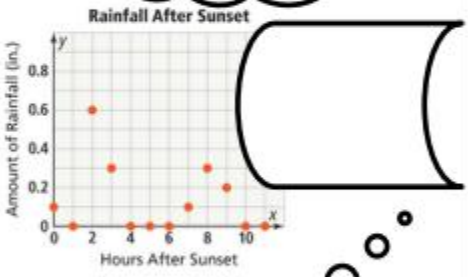
$0 < r \leq 1$

Closer to 1, the stronger the positive correlation



$-1 \leq r \leq 0$

Closer to -1, the stronger the negative correlation



r-values close to 0 have weak correlation

Example 3: Interpret a line of Best Fit

Louisa starts training for cross country. She records how far she can run without stopping each week. She finds her line of best fit for her data is $y = 0.31x + 0.54$.

a) According to her line of best fit, how far could Louisa run without training? What part of the graph tells this?

b) According to her line of best fit, how much more does she run each week? What part of the equation tells this?

c) To make the team Louisa needs to be able to run at least 3 miles. How many weeks will this take?

The table shows the number of customers, y, at a store for x weeks after the store's grand opening. The equation for the line of best fit is $y = 7.77x + 38.8$. Assuming the trend continues, what is a reasonable prediction of the number of visitors to the store 7 weeks after its opening?

x	1	2	3	4	5	6
y	46	53	65	71	75	86