

Algebra 1 4.5

Investigate relationships between quantities by using scatterplots

Use lines of fit to make and evaluate predictions

bivariate data

line of fit (prediction equation)

independent variable (x)

Dependent variable (y)

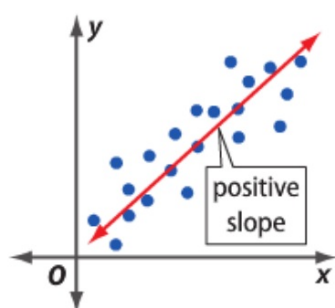
interpolation

extrapolation

correlation

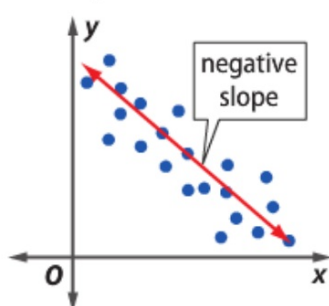
ConceptSummary Scatter Plots

Positive Correlation



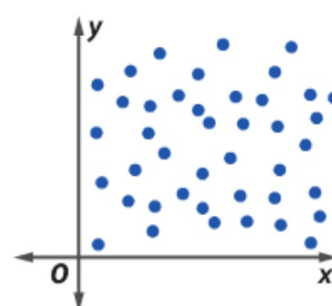
As x increases, y increases

Negative Correlation



As x decreases, y decreases

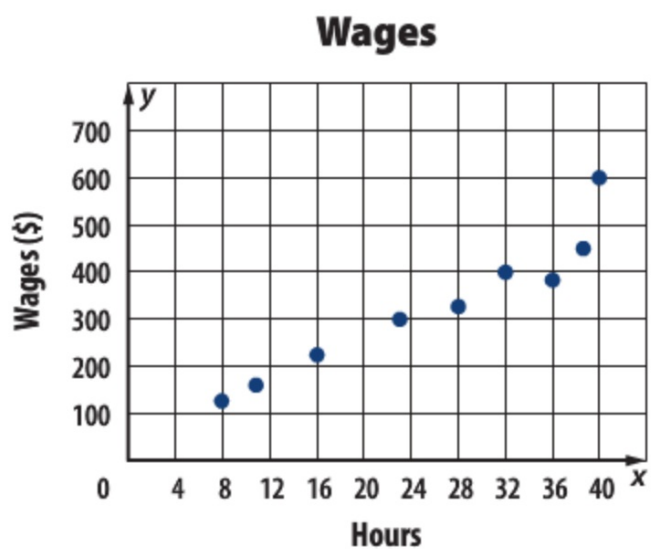
No Correlation



x and y are not related

Real-World Example 1 Evaluate a Correlation

WAGES Determine whether the graph shows a *positive*, *negative*, or *no* correlation. If there is a positive or negative correlation, describe its meaning in the situation.



"It goes up" is not the kind of answer I am looking for.

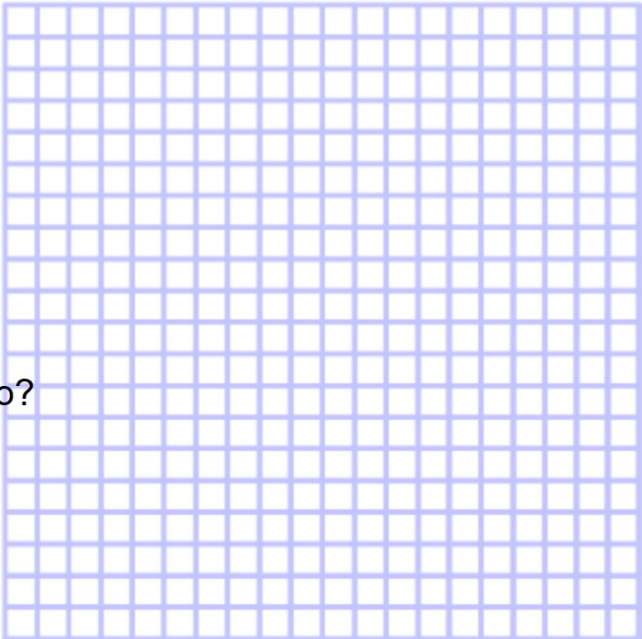
Write equation

GuidedPractice

2. MUSIC The table shows the dollar value in millions for the sales of CDs for the year. Make a scatter plot and determine what relationship exists, if any.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Sales	13,215	12,909	12,044	11,233	11,447	10,520	9373	7452	5471

Graph
Where would a reasonable line go?
Use 2 points on the line
Write an equation



ICE ws