

Indicators

Objective:

4.02 Approximate a line of best fit for a given scatterplot; explain the meaning of the line as it relates to the problem and make predictions.

Vocabulary and Resources		
coordinate plane	ordered pair	negative correlation
dependent variable	slope (rate of change)	negative relationship
independent variable	correlation/trend	no correlation
y-intercept	positive correlation	no relationship
x-intercept	positive relationship	constant relationship

A. Measure the circumference and diameter of 15 to 20 round objects, recording the results in a table. Then make a scatterplot (with diameter on the horizontal axis) and determine the line of best fit. Identify the slope of this linear relation. Based on your results, what would be the circumference of an object with diameter of 13 inches?

B. A salesman at the local car dealership estimated the number of SUVs that he would sell for a ten month period. He also recorded the actual number of sales he made. The results are given below. Use a scatterplot to display this data. Draw a line of best fit for the scatterplot. Without using a calculator, approximate the equation of this line. Is there a positive, negative, or no correlation for these data?

Month	Estimate of SUVs sold	Actual number of SUVs sold
1	2	3
2	5	4
3	5	3
4	9	11
5	12	9
6	8	10
7	13	16
8	14	13
9	3	5
10	16	15