

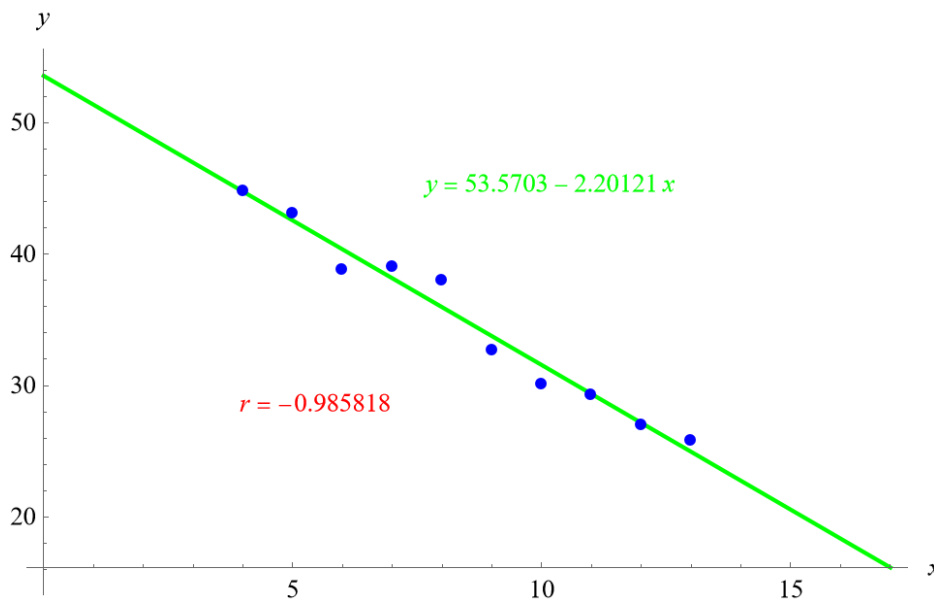
Exercise 28

For the following exercises, use each set of data to calculate the regression line using a calculator or other technology tool, and determine the correlation coefficient to 3 decimal places of accuracy.

| x | y |
|-----|------|
| 4 | 44.8 |
| 5 | 43.1 |
| 6 | 38.8 |
| 7 | 39 |
| 8 | 38 |
| 9 | 32.7 |
| 10 | 30.1 |
| 11 | 29.3 |
| 12 | 27 |
| 13 | 25.8 |

Solution

Plot the following points on a graph: (4, 44.8), (5, 43.1), (6, 38.8), (7, 39), (8, 38), (9, 32.7), (10, 30.1), (11, 29.3), (12, 27), and (13, 25.8).



Mathematica's FindFit function gives

$$y = 53.5703 - 2.20121x,$$

and Mathematica's Correlation function gives $r = -0.985818$.