## Exercise 29

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.

| $x$ | 21 | 25 | 30 | 31 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $y$ | 17 | 11 | 2 | -1 | -18 | -40 |

## Solution

Plot the following points on a graph: $(21,17),(25,11),(30,2),(31,-1),(40,-18)$, and $(50,-40)$.


Mathematica's FindFit function gives

$$
y=60.1968-1.98061 x,
$$

and Mathematica's Correlation function gives $r=-0.998493$.

