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### 1.3 Practice A

In Exercises 1 and 2, use the graph to write an equation of the line and interpret the slope.
1.

2.

3. Two car washes charge a basic fee plus a fee based on the number of extras that are chosen. The table below shows the total costs for different car washes at Bubbles Car Wash. The total cost $y$ (in dollars) for a car wash with $x$ extras at Soapy Car Wash is represented by the equation $y=x+9$. Which car wash charges more for the basic fee? How many extras must be chosen for the total costs to be the same?

| Number of extras, $\boldsymbol{x}$ | 2 | 4 | 6 | 8 |
| :--- | :---: | :---: | :---: | :---: |
| Total cost, $\boldsymbol{y}$ | 9 | 12 | 15 | 18 |

In Exercises 4 and 5, determine whether the data show a linear relationship. If so, write an equation of a line of fit. Estimate $y$ when $x=15$ and explain its meaning in the context of the situation.
4.

| Weeks, $\boldsymbol{x}$ | 3 | 6 | 10 | 12 | 16 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Height of basil plant (inches), $\boldsymbol{y}$ | 1 | 2 | 5 | 9 | 15 |

5. 

| Minutes, $\boldsymbol{x}$ | 6 | 10 | 14 | 20 | 24 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cars washed, $\boldsymbol{y}$ | 3 | 5 | 7 | 10 | 12 |

6. A set of data points has a correlation coefficient $r=-0.86$. Your friend claims that because the correlation coefficient is close to -1 , it is reasonable to use the line of best fit to make predictions. Is your friend correct? Explain your reasoning.
