## Chapter 9 Review Questions

1. Sophia has a doll collection with 36 dolls. She decides to sell "s" dolls to a museum and has " $r$ " dolls remaining. Write the equation for Sophia's doll collection. What is the dependent and independent variables?
2. Brayden is training for a marathon. The table shows how the number of miles he runs depends on which of training he is in. Write the equation that is represented by the table. What is the dependent and independent variables? How many miles will Brayden run in the $13^{\text {th }}$ week?

| Miles Run During Training |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Week, w | 3 | 4 | 6 | 7 |
| Miles, m | 7 | 8 | 10 | 11 |

3. A coach is ordering soccer jerseys from a website. The jerseys cost $\$ 13$ each, and shipping is $\$ 25$ per order. Write the equation that can be used to determine the total cost " y ", in dollars, for " $x$ " jerseys. What is the dependent and independent variables?
4. Indicate which set of points, when graphed, would line on the same line.
A. $(1,5),(2,3),(3,1),(2,-1)$
B. $(1,0),(2,3),(4,9),(5,13)$
C. $(-1,2),(-2,0),(-3,-2),(-4,-4)$
D. $(1,8),(2,10),(4,13),(5,15)$
5. Graph the relationship represented by the table to find the unknown value.

| Draining Water in a Tub |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Time <br> (seconds), x | 40 | 50 | 60 | 70 |  |
| Water in Tub <br> (gallons), y | 15 | 13.5 | $?$ | 10.5 |  |

What is the equation of the line?

6. A taxicab company charges an initial fee of $\$ 5$ and the $\$ 4.50$ per mile for a ride.

Fill in the table below. What is the equation for the taxi cab with miles represented by " $x$ " and total cost represented by " $y$ ".

| Input | Output |
| :---: | :---: |
| Miles (mi), x | $\operatorname{Cost}(\$), \mathrm{y}$ |
| 2 |  |
| 4 |  |
| 6 |  |
| 8 |  |

7. The graph below represents the amount of gasoline in a gas tank while driving from Fresno to Bakersfield. How much gas is left in the tank after 250 miles driven.

