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## Skills Maintenance

Solving Equations With Variables

## Activity 1

Solve the equations by substituting the value for the variable.

1. Solve $y=2 x+1$ if $x=2$. $\qquad$
2. Solve $y=-x+5$ if $x=-3$. $\qquad$
3. Solve $y=x+7$ if $x=10$. $\qquad$
4. Solve $y=\frac{1}{2} x+10$ if $x=6$. $\qquad$
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## $\% \div$ Apply Skills <br> The $Y$-Intercept

## Activity 1

Find the functions for each problem. Each problem describes a situation and provides a table of data. Your job is to:
(a) Label the $x$ - and $y$-axes based on the information in the problem.
(b) Draw the line on the graph.
(c) Write the function.

1. Watch It Tonight! is a local video store that rents movies. They have a plan where you pay $\$ 10$ per month, and then $\$ 2$ per movie. This way you can watch as many movies as you want for the month for just $\$ 2$ each. The table shows the total cost to rent movies (up to 5).

| Number <br> of Movies | Cost for <br> Videos | Monthly <br> Charge | Total <br> Cost |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 10 | 10 |
| 1 | 2 | 10 | 12 |
| 2 | 4 | 10 | 14 |
| 3 | 6 | 10 | 16 |
| 4 | 8 | 10 | 18 |
| 5 | 10 | 10 | 20 |

Write the function. $\qquad$

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2. Watch It Tonight! decided that it was not getting enough business by charging $\$ 10$ per month, so it dropped its monthly charge to $\$ 7$ per month. Here is a new table that shows the cost of renting up to five videos per month.

| Number of <br> Movies | Cost for <br> Videos | Monthly <br> Charge | Total Cost |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 7 | 7 |
| 1 | 2 | 7 | 9 |
| 2 | 4 | 7 | 11 |
| 3 | 6 | 7 | 13 |
| 4 | 8 | 7 | 15 |
| 5 | 10 | 7 | 17 |

Write the function. $\qquad$


