

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**Module 9** Using Functions  
**Lesson 5** Solving Problems Using Functions



**guided  
practice**

**Set 1**

- Write an equation for the function that can be used to find the volume of a shed that is in the shape of a cube. Use the function to find the volume of a cube-shaped shed with a side of length eight feet.  
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- Roxy opened a bank account and deposited \$100. She plans to deposit \$10 every month and make no withdrawals. Write an equation for the function that describes how much money Roxy will have deposited in her account after  $x$  months.  
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- Use the function,  $f(x) = 10x + 100$ , to find out how much money was deposited in Roxy's account after 8 months.  
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- Write an equation for the function that describes how many minutes are left on a game clock in a one-hour football game after  $x$  minutes of play. Use the function to find out how much time is left after 16 minutes of play.  
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**Set 2**

- The amount of money Pogans Plumbers charge for a house call can be described by a linear function. The charge for a one-hour job is \$85. The charge for a two-hour job is \$125. Write the equation for the function and use the function to find the cost of a three-hour job.  
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- Scuba divers can use a linear function to determine their depth using the water pressure. If the water pressure is 2 atmospheres, the depth of the ocean is 33 feet. If the water pressure is 3 atmospheres, the depth of the ocean is 66 feet. Use a linear function to find the depth of the water if the water pressure is 5 atmospheres.  
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