## UNIT 2 • QUADRATIC FUNCTIONS AND MODELING

## Lesson 2: Interpreting Quadratic Functions

## Scaffolded Practice Skill 5

## Example 1

Marc gets paid $\$ 15$ per lawn he mows. Graph the proportional relationship. Determine the slope and what it means in the context of the problem. How can the slope be used to determine how many lawns Marc mowed if he made $\$ 180$ ? What is the equation that describes the relationship between the two quantities?

1. Create a table to show how the two quantities described vary.

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2. Graph the proportional relationship.

3. Determine the slope and what it means in the context of the problem.
4. How can the slope be used to determine how many lawns Marc mowed if he made $\$ 180$ ?
5. Write the equation that describes the relationship between the two quantities.

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## Example 2

At a roadside farm stand, you can buy 5 pounds of any of the vegetables for a total cost of $\$ 6$. Determine the slope of the line formed by the proportional relationship between the number of pounds purchased and the cost of the vegetables. Explain what the slope means in the context of the problem. Finally, use the slope to determine how many pounds of vegetables can be purchased for $\$ 13$. Assume there is no sales tax.

## Example 3

A new plumber has just started his own business. In order to try and gain customers, he is running a special for his services. He charges $\$ 16$ per hour, plus a standard house call fee of $\$ 25$. Determine the slope of the line that passes through the points of the total cost for jobs lasting from 2 hours to 6 hours. Explain what the slope means in the context of the problem. Finally, use the slope to determine how many hours of work a customer could get for $\$ 150$. Assume there is no sales tax.

