Visual Learning Animation
www.pearsonsuccessnet.com or CD

Why do you multiply 65 by h?
[*h* represents the number of hours, and each hour costs $65.]

Step 2

Evaluate the expression for various numbers of hours. Substitute each value for *h* in the expression $55 + 65h$.

For 2 hours: $55 + (65 \times 2) = 55 + 130 = 185$

For 4 hours: $55 + (65 \times 4) = 55 + 260 = 315$

For 5 hours: $55 + (65 \times 5) = 55 + 325 = 380$

The total cost for a 2-hour service call is $185, for a 4-hour service call is $315, and for a 5-hour service call is $380.

How much would a 3-hour service call cost? [$55 + 65(3) = 250$; $250] *What pattern do you see for the cost of each additional hour?* [Every hour after the first hour costs $65 more.]

Step 1

The total cost is the fee plus the charge per hour times the number of hours.

Write an expression for the total cost. Let *h* represent the number of hours.

The expression for the total cost in dollars is $55 + 65h$.

Step 2

Evaluate the expression for various numbers of hours. Substitute each value for *h* in the expression $55 + 65h$.

For 2 hours: $55 + (65 \times 2) = 55 + 130 = 185$

For 4 hours: $55 + (65 \times 4) = 55 + 260 = 315$

For 5 hours: $55 + (65 \times 5) = 55 + 325 = 380$

The total cost for a 2-hour service call is $185, for a 4-hour service call is $315, and for a 5-hour service call is $380.

Guided Practice*

Do you know HOW?

Write an algebraic expression for each word phrase. Let *x* represent the number.

1. Three times a number, plus 10
   $3x + 10$
2. Four less than a number times 2
   $2x - 4$, or $2(x - 4)$
3. Eight plus a number times 5
   $8 + 5x$, or $(8 + x) \times 5$
4. Forty minus two times a number
   $40 - 2x$ or $(40 - 2)x$

Do you UNDERSTAND?

5. How much does Matteo Electrical Repair charge for 3 hours of work?
   $250
6. Evaluate $3n + 18$ for $n = 2$.
   24
7. Evaluate $3n + 18$ for $n = 3$.
   27
8. Does $3n + 18$ have the same meaning as $3 \times n + 18$? Explain.
   Yes; $3n$ means $3 \times n$.

Independent Practice

For **9** through **12**, write an algebraic expression for each phrase. Let *n* represent the number.

9. Nine times a number, minus six
   $9n - 6$
10. Seven less than a number times three
    $3n - 7$
11. Four more than a number, times twelve
    $(n + 4) \times 12$
12. Eight plus a number times sixteen
    $(8 + n) \times 16$, or $8 + 16n$

For **13** through **16**, evaluate the expressions for $p = 21$ and $k = 64$.

13. $3p + 52$ **115**
14. $10k - 249$ **391**
15. $432 - 2p$ **390**
16. $3p + 4k$ **319**

For **17** through **20**, evaluate the expressions for $r = 13$ and $h = 52$

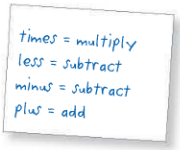
17. $(8 + r) \times 3$ **63**
18. $352 - 4h$ **144**
19. $5r + 97$ **162**
20. $9r - 2h$ **13**

**For another example, see Set C on page 166.*

2 Guided Practice

Formative Assessment

Remind students that "times" means to multiply, "less" or "minus" means to subtract, and "plus" means to add.



Exercise 5

Error Intervention

If students have trouble writing the expression to find the answer,

then say: *Look at the table for Matteo's Electrical Repair. What does Matteo charge for one hour of work?* [$65] *How many hours of work does Exercise 5 say Matteo is doing?* [3] *What operation should you do to find the charge for 3 hours of work?* [Multiplication] *What else does Matteo include in his bills?* [Service fee of $55] *What other operation do you use to find the total cost?* [Addition]

Reteaching For another example and more practice, assign **Reteaching** Set C on page. 166.

3 Independent Practice

Remind students to pay close attention to the "clue words" used to indicate which operation they should perform. Use Exercise 11 as an example. *In Exercise 11, the word "more" indicates you should add, and the word "times" indicates you should multiply.*

See **Extensions** on page 167A.