Name _____ Practice Video Tools Games

Additional Practice 13-1
Evaluate Expressions

Another Look!

When an expression contains more than one operation, **parentheses ( )** can be used to show which operation should be done first. Parentheses are one type of **grouping symbol**.

Do the operation inside the parentheses first.

Evaluate $(2 + 8) \times 3$.

$10 \times 3 = 30$

Evaluate $2 + (8 \times 3)$.

$2 + 24 = 26$

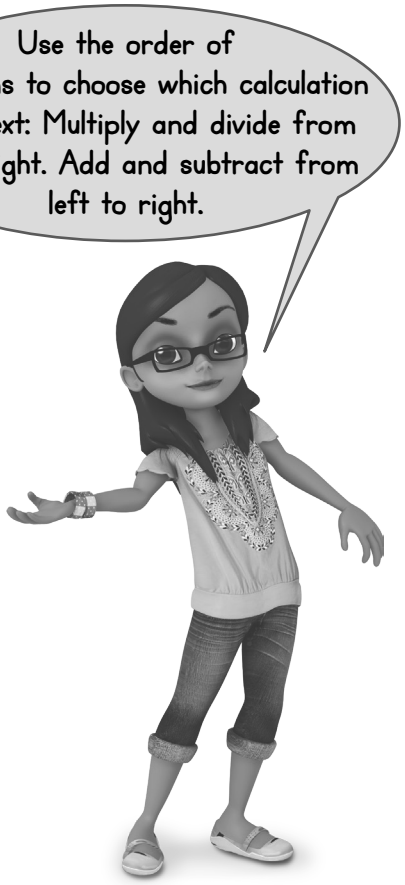
Brackets and **braces** are other types of **grouping symbols**.
Evaluate terms inside brackets after doing operations within parentheses.

Evaluate $[(4 + 9) - (30 \div 5)] \times 10$.

$[13 - 6] \times 10$

$7 \times 10 = 70$

In **1–12**, evaluate the expression.



1. $(16 + 4) \div 10$

20 $\div 10 =$ 2

2. $60 \div (3 \times 4)$

$60 \div$ 12 $=$ 5

3. $(16 \div 4) + (10 - 3)$

11

4. $64 \div (10 \times 0.8)$

8

5. $27 - (7.5 \times 2)$

12

6. $[(4 \times 6) + 6] \div 6$

5

7. $(5 + 2) \times (14 - 9) - 1$

34

8. $5 + \{[2 \times (14 - 9)] - 1\}$

14

9. $(52 + 48) \div (8 + 17)$

4

10. $[52 + (48 \div 8)] + 17$

75

11. $(80 + 16) \div (4 + 12)$ 6

12. $80 + 16 \div 4 + 12$ 96

13. Keisha bought a new pair of skis for $450. She made a payment of $120 and got a student discount of $40. Her mother paid $\frac{1}{2}$ of the remaining balance. How much does Keisha have left to pay?

$145

14. Be Precise Ellen is $5\frac{1}{2}$ feet tall. Her sister is $\frac{3}{4}$ foot shorter than Ellen. How tall is Ellen's sister?

$\frac{19}{4}$ ft or $4\frac{3}{4}$ ft

15. Higher Order Thinking Rewrite using parentheses to make each statement true.

a $42 + 12 \div 6 = 9$

$(42 + 12) \div 6 = 9$

b $33 - 14\frac{1}{2} + 3\frac{1}{2} = 15$

$33 - (14\frac{1}{2} + 3\frac{1}{2}) = 5$

c $32 \div 8 \times 2 = 2$

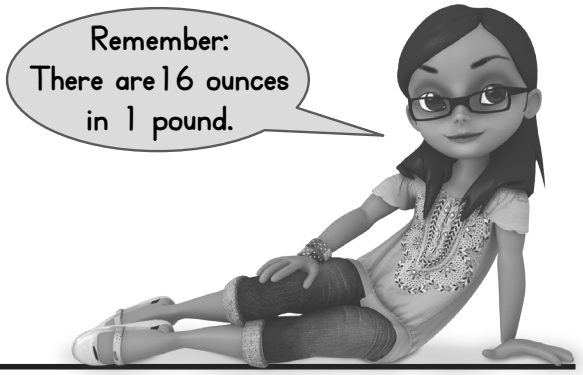
$32 \div (8 \times 2) = 2$

16. Algebra What steps would you use to solve the equation $n = 7 + (32 \div 16) \times 4 - 6$? Solve the equation.

***n* = 9; Divide 32 by 16, then multiply 2 by 4. Next add 7, and then subtract 6.**

17. Make Sense and Persevere Milton makes trail mix for his hiking group. He mixes $1\frac{1}{4}$ pounds of peanuts, 14 ounces of raisins, 12 ounces of walnuts, and 10 ounces of chocolate chips. If Milton divides the trail mix equally among the 8 hikers in the group, how many ounces of trail mix does each hiker receive?

7 oz



Assessment Practice

18. Which expression has a value of 11?

Ⓐ $13 - 5 - 3$

Ⓑ $1 + (8 \times 2)$

Ⓒ $5 + 2 \times (4 - 1)$

Ⓓ $15 - 1 + (6 \div 2)$

19. Using the order of operations, which operation should you perform last to evaluate this expression?

$8 + \{[14 \div 2 \times (3 - 1)] - 1\}$

Ⓐ Addition

Ⓑ Division

Ⓒ Multiplication

Ⓓ Subtraction