

SECTION

1A

Ready to Go On? Skills Intervention**1-3 Order of Operations**

To simplify a **numerical expression**, an expression made up of numbers and operations, follow the **order of operations**. First, evaluate expressions within grouping symbols. Next, evaluate exponents. Then, multiply and divide, starting at the left. Finally, add and subtract from left to right.

Vocabulary

numerical
expression
order of operations

Using the Order of Operations

Simplify $41 + 3^2 \cdot 2$. Use the order of operations to justify your work.

$41 + 3^2 \cdot 2$ Circle your first operation.

$41 + __ \cdot 2$ Evaluate.

$41 + 9 \cdot 2$ Circle the next operation.

$41 + __$ Evaluate.

$__$ Add.

Using the Order of Operations with Grouping Symbols

Simplify $16 \div (11 - 9)^3 + 22$. Use the order of operations to justify your work.

$16 \div (11 - 9)^3 + 22$ Circle your first operation.

$16 \div (__)^3 + 22$ Evaluate.

$16 \div (2)^3 + 22$ Circle your next operation.

$16 \div 8 + 22$ Evaluate.

$16 \div 8 + 22$ Should you add or divide next? _____

$2 + 22$ Evaluate.

$__$ Add.

Personal Finance Application

Jane earns \$7.50 per hour cleaning houses. She worked 7 hours on Monday and 8 hours each on Tuesday and Thursday. Simplify the expression $(7 + 8 \cdot 2) \cdot 7.5$ to find her income for this week.

$(7 + 8 \cdot 2) \cdot 7.5$ Circle your first operation.

$(7 + __) \cdot 7.5$ Evaluate.

$(7 + 16) \cdot 7.5$ Circle your next operation.

$23 \cdot 7.5$ Evaluate.

$______$ Multiply.

Jane earned _____ in a week.