Summary 1.15

The **order of operations** guides the order in which to perform addition, subtraction, multiplication, and division when more than 1 operation is in an expression. When **simplified** in this order, answers are consistent.

Order of Operations

1. **Multiply** or **Divide**
2. **Add** or **Substract**

Follow the steps to simplify.

$25 + 36 \div 4 \times 3 - 15$

$25 + 9 \times 3 - 15$

$25 + 27 - 15$

$52 - 15$

$= 39$

order of operations A consistent order applied to an expression with multiple operations.

Practice 1.15

1 Which operation should be performed first when simplifying the expression $64 \div 8 \times 2 - 3 + 18$?

(A) subtraction
(B) addition
(C) division
(D) multiplication

2 What is the value of the expression in Problem 1?

(A) 20
(B) 31
(C) 19
(D) 46

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For Problems 3–5, simplify the expression using the order of operations. Sample work shown.

Show your thinking.

3 $75 \div 3 \times 5 + 16$

$25 \times 5 + 16$
$125 + 16$

answer: 141

4 $34.60 - 22.25 + 6 \times 4 \div 2$

$6 \times 4 = 24$
$24 \div 2 = 12$
$34.60 - 22.25 = 12.35$
$12.35 + 12 = 24.35$

answer: 24.35

5 $48 \div 2 \times 3 + 1.85 - 2.75$

$48 \div 2 = 24$
$24 \times 3 = 72$
$72 + 1.85 = 73.85$
$73.85 - 2.75 = 71.1$

answer: 71.1

Name _____ Date _____

Spiral Review

For Problems 6–9, determine the value of the expression.

6 10×15 150

7 14×12 168

8 41×21 861

9 10×36 360

For Problems 10–12, decompose the fraction as the sum of fractions with the same denominator.

10 $\frac{7}{3}$

$\frac{2}{3} + \frac{2}{3} + \frac{3}{3} = \frac{7}{3}$

11 $\frac{9}{10}$

$\frac{3}{10} + \frac{3}{10} + \frac{3}{10} = \frac{9}{10}$

12 $\frac{5}{4}$

$\frac{2}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{5}{4}$