Module 1   Number Sense
Lesson 1   Order of Operations

Evaluate each of the following.

1. $20 + 5 \times 4 + 9$
49

2. $(15 - 9) \times (3 + 4)$
42

3. $48 \div (18 - 10) + 15$
21

4. $9 \times (5 + 7) - 26$
82

5. $7 \times (27 \div 9)^2$
63

6. $9 \times 2^2 \div (16 - 4)$
3

7. $2[4(5 + 11)] - 100$
28

8. $45 \div 3^2 + 10(15 - 12)$
35

9. $(36 \div 9)^2 \div (1 + 3)$
4

10. $[3\{70 \div (5 \times 7)\}] \div 2$
3

Journal

1. When are exponents evaluated in the Order of Operations?

2. Darnell says that the expression $4 + 5 \times 6$ is equal to 34. Ashley says that it is equal to 54. Who is correct? Justify your answer.

3. Explain how to solve $8 + (15 \div 5)^3$.

Cumulative Review

Evaluate each of the following.

1. $8 \times 5 + 27 \div 9$
43

2. $(25 + 15) \div (12 - 4)$
5

3. $6 \times (3 + 9) - 12$
60

4. $84 \div (2^2 \times 3)$
7

5. $9 \times [35 \div (11 - 4)]$
45

6. $(48 \div 12)^3 \times (12 - 10)$
128

7. $8(9 + 3) + 2 \times 6^2$
168

8. $(25 + 65) - 3[5(2 + 4)]$
0

9. $10 + 3[9 + (40)(3) \div (4)(5)]$
487

10. $9^2 \div 3 + 5[4 + 2 \times 12 \div 6]$
67

Possible Journal Answers

1. **Exponents are evaluated after parentheses and before multiplication, division, addition, or subtraction.**

2. **Darnell is correct. He remembered to multiply 5×6 before adding 4.**

3. **Follow the order of operations. Evaluate the parentheses first: $15 \div 5 = 3$. Next, evaluate the exponent: $3^3 = 27$. Finally, perform the addition: $8 + 27 = 35$.**

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