NAME _____   DATE _____

Order of Operations

The order of operations tells you how to do calculations when there is more than one kind of operation.

Order of Operations	Example
	$20 - 12 \div (3 + 1)$
1. Anything inside parentheses	$20 - 12 \div (\mathbf{3 + 1}) = 20 - 12 \div 4$
2. Multiplication and division from left to right	$20 - \mathbf{12 \div 4} = 20 - 3$
3. Addition and subtraction from left to right	$\mathbf{20 - 3} = 17$

1 Use the order of operations above to complete each equation.

a $(9 + 3) \times (16 \div 8) \div 4$	**b** $(365 + 35) \div 5 + 3$
c $36 \div 6 + 4 \times (27 \div 9)$	**d** $(26 - 18) \times 5 \div 10 + 10$

2 Insert parentheses to make each equation true.

a $2 \times 18 - 5 + 15 \div 5 = 32$	**b** $34 - 20 \div 4 + 3 = 2$
c $14 = 50 - 42 \div 3 + 4 \times 6$	**d** $21 = 7 + 16 - 8 \div 2 + 2 \times 25 \div 5$

CHALLENGE

3 Using at least two operations, write an expression that is the same whether you do the calculations from left to right or using the correct order of operations.

NAME _____ DATE _____

Order of Operations Review

The order of operations tells you how to do calculations when there is more than one kind of operation.

Order of Operations	Example
	$20 - 12 \div (3 + 1)$
1. Anything inside parentheses	$20 - 12 \div \mathbf{(3 + 1)} = 20 - 12 \div 4$
2. Multiplication and division from left to right	$20 - \mathbf{12 \div 4} = 20 - 3$
3. Addition and subtraction from left to right	$\mathbf{20 - 3} = 17$

1 Use the order of operations above to complete each equation. Show all your work.

a _____ $= 463 - 180 \div (3 \times (2 + 3))$	**b** $(249 - 192) \div 3 \times 14 =$ _____
c _____ $= 36 + 14 \times (182 - 164) \div 12$	**d** $(9 \div 3 + 213) - 72 \div 4 =$ _____

2 Insert parentheses to make each equation true. Show all your work.

a $3 \times 9 + 18 + 36 \div 9 = 33$	**b** $2 = 140 \div 2 + 12 - 4 \times 2$

Name _____ Date _____

Homework Practice

Order of Operations

Find the value of each expression.

1. $2 \times (4 + 7) - 6$ _____

2. $10 \times (6 - 3) \div 15$ _____

3. $15 \div 3 + 16 \times (9 - 5)$ _____

4. $66 \div 11 + 3$ _____

5. $13 + 5^2 \times (8 - 3)$ _____

6. $18 - 3^2 + (9 - 0)$ _____

7. $27 \div 3^2 + (38 - 15)$ _____

8. $26 + 6^2 \times 4$ _____

9. $8 \div (20 - 16) + 3^2$ _____

10. $7 \times 6 \div 2 + (9 - 4)$ _____

11. $22 \times 4 \div 4 - 4^2$ _____

12. $8 + 32 \times (20 - 10)$ _____

Spiral Review

Write each product using an exponent. (Lesson 1–2)

13. $4 \times 4 \times 4$ _____

14. $5 \times 5 \times 5 \times 5$ _____

15. 8×8 _____

16. $3 \times 3 \times 3$ _____

Write each power as a product of the same factor. Then find the value of the following.

17 7^3 _____

18. 6^2 _____

19. 4^2 _____

20. 2^3 _____

21. 3^5 _____

22. 5^4 _____

Name _____ Date _____

Homework Practice

Algebra: The Distributive Property

Find each product mentally. Use the Distributive Property.

1. 10×41 _____

2. 5×32 _____

3. 3×57 _____

4. 18×3 _____

5. 14×5 _____

6. 2×26 _____

Rewrite each expression using the Distributive Property.

7. $5 \times (14 - 3)$ _____

8. $6 \times (9 + 2)$ _____

9. $7 \times (2 - 1)$ _____

10. $9 \times (3 + 4)$ _____

Rewrite each expression using the Distributive Property. Then evaluate.

11. $4 \times (8 + 2)$ _____

12. $8 \times (9 + 3)$ _____

13. $3 \times (12 + 4)$ _____

Spiral Review

14. Find the area of a square whose sides are 19 inches long. _____

Solve each equation mentally.

15. $a + 13 = 18$ _____

16. $43 - b = 24$ _____

17. $49 = 7x$ _____

18. $39 - k = 12$ _____

Chapter Resources

Name _____ Date _____

Homework Practice

Number Sentences

Find the value of each expression.

1. $2 \times (4 + 7)$ _____

2. $10 \times (6 - 3)$ _____

3. $(15 \div 3) + (9 - 5)$ _____

4. $(66 \div 11) + 3$ _____

5. $13 \times 5 \times (8 - 3)$ _____

6. $(18 - 3) + (9 - 0)$ _____

7. $(27 \div 3) + (38 - 15)$ _____

8. $26 + (6 \times 4)$ _____

9. $8 \div (20 - 16)$ _____

10. $(7 \times 6) \div (9 - 3)$ _____

11. $22 \times (4 \div 4)$ _____

12. $(8 + 32) \times (20 - 10)$ _____

Spiral Review

Complete each function table. (Lesson 5–6)

13. The output value is 7 less than the input value.

Input (x)	x − 7	Output
16	16 − 7	9
17	17 − 7	10
18	18 − 7	11

14. The output value is half of the input value.

Input (x)	x ÷ 2	Output
20	20 ÷ 2	10
22	22 ÷ 2	11
24	24 ÷ 2	12

1. $3 \times (2 \times 4_3) \div 4$

2. $(4_3 + 2 - 1)$

3. $(5 \times 3) \times 1 + 5$

4. $(7_2 - 2_3 - 6)$

5. $(5_3 + 7) \times 2$

6. $4 - (9 + 2_2 \div 2)$

7. $6 - (9 + 8_2 \times 1_3) + 5$

8. $(2 \div 4 \times 8)$

9. $8 - (3 + 4_3) \times 5$

10. $5 \times (2_3 - 8) \times 5$

11. $(9 \times 9 + 5)$

12. $(1 + 4 - 4)$

13. $5 \times (4 \div 1^2 + 8)$

14. $(5 - 8^2 + 6 - 1)$

15. $2^2 \div (6 \div 9) - 5$

16. $(3 + 1^2 + 4)$

17. $1^3 - (2 + 3 + 7) \times 5$

18. $3 \times (2^3 + 5) + 2$

19. $9 \times (2^3 \div 4 \times 5)$

20. $(8 + 7 + 2 - 9)$