Name _____ Date _____ Class _____

LESSON 1-4

Practice C

Order of Operations

Evaluate each expression.

1. $42 - 3 \cdot 10 + 2$

_____

2. $1 + 4^3 - 16$

_____

3. $(15 - 6) \cdot 2 + 20$

_____

4. $(5^2 + 3^2 + 2) \div 6$

_____

5. $61 - 5 \cdot 2^3 + 5$

_____

6. $7 \cdot 8 + (2 \cdot 4) \div 2^2$

_____

Insert parentheses so that each equation is correct.

7. $12 - 3 \cdot 2 + 4^2 = 34$

_____

8. $72 \div 2 \cdot 4 \div 3 = 3$

_____

9. $13 + 7 - 6 + 4 \cdot 2 = 0$

_____

10. $28 \div 7 + 3^3 - 3^2 - 1 = 21$

_____

Use each of the numbers 2, 3, 4, and 6 once to make each equation correct.

11. (____ − ____) + ____ • ____ = 11

_____

12. ____ • ____ − (____ ÷ ____) = 6

_____

13. ____ + (____ • ____) • ____ = 30

_____

14. ____ ÷ ____ + ____ • ____ = 20

_____

15. Use an exponent to write an expression with five 3s that has a value of 0.

_____

16. Mrs. Thompson is putting new tile on her bathroom floor. Each tile measures 2 inches on each side. The bathroom floor is 3 feet long and 2 feet wide. How many tiles will she use to cover the entire floor?

_____

LESSON 1-4 Practice B
Order of Operations

Evaluate each expression.

1. $10 + 6 \cdot 2$ — 22
2. $(15 + 39) \div 6$ — 9
3. $(20 - 15) \cdot 2 + 1$ — 11
4. $(4^2 + 6) \div 11$ — 2
5. $9 + (7 - 1) \cdot 2$ — 21
6. $(2 \cdot 4) + 8 - (5 \cdot 3)$ — 1
7. $5 + 18 \div 3^2 - 1$ — 6
8. $8 + 5 \cdot 10 - 12$ — 46
9. $14 + (50 - 7^2) \cdot 3$ — 17

Insert parentheses so that each equation is correct.

10. $7 + 9 \cdot 3 - 1 = 25$ — $(3 - 1)$
11. $2^3 - 7 \cdot 4 = 4$ — $(2^3 - 7)$
12. $5 + 6 \cdot 9 \div 3 = 23$ — $(9 \div 3)$
13. $12 \div 3 \cdot 2 = 2$ — $(3 \cdot 2)$
14. $8 + 3 \cdot 6 - 4 - 1 = 13$ — $(6 - 4)$
15. $4 \cdot 3^2 + 1 = 40$ — $(3^2 + 1)$
16. $9 \cdot 0 + 5 - 3 = 42$ — $(0 + 5)$
17. $15 \cdot 3^2 - 2^3 = 15$ — $(3^2 - 2^3)$
18. $14 \div 2 + 5 \cdot 5 = 10$ — $(2 + 5)$

19. Tyler walked 2 miles a day for the first week of his exercise plan. Then he walked 3 miles a day for the next 9 days. How many miles did Tyler walk in all?

41 miles

20. Paulo's father bought 8 pizzas and 12 bottles of juice for the class party. Each pizza cost $9 and each bottle of juice cost $2. Paulo's father paid with a $100-bill. How much change did he get back?

$4

LESSON 1-4 Practice C
Order of Operations

Evaluate each expression.

1. $42 - 3 \cdot 10 + 2$ — 14
2. $1 + 4^3 - 16$ — 49
3. $(15 - 6) \cdot 2 + 20$ — 38
4. $(5^2 + 3^2 + 2) \div 6$ — 6
5. $61 - 5 \cdot 2^3 + 5$ — 26
6. $7 \cdot 8 + (2 \cdot 4) \div 2^2$ — 58

Insert parentheses so that each equation is correct.

7. $12 - 3 \cdot 2 + 4^2 = 34$ — $(12 - 3)$
8. $72 \div 2 \cdot 4 \div 3 = 3$ — $(2 \cdot 4)$
9. $13 + 7 - 6 + 4 \cdot 2 = 0$ — $(6 + 4)$
10. $28 \div 7 + 3^3 - 3^2 - 1 = 21$ — $(3^3 - 3^2)$

Use each of the numbers 2, 3, 4, and 6 once to make each equation correct. Possible answers are given.

11. $(\_\_ - \_\_) + \_\_ \cdot \_\_ = 11$ — $(6 - 3) + 2 \cdot 4$
12. $\_\_ \cdot \_\_ - (\_\_ \div \_\_) = 6$ — $2 \cdot 4 - (6 \div 3)$
13. $\_\_ + (\_\_ \cdot \_\_) \cdot \_\_ = 30$ — $6 + (2 \cdot 3) \cdot 4$
14. $\_\_ \div \_\_ + \_\_ \cdot \_\_ = 20$ — $4 \div 2 + 6 \cdot 3$

15. Use an exponent to write an expression with five 3s that has a value of 0.

Possible answer: $3 \cdot 3 \cdot 3 - 3^3$

16. Mrs. Thompson is putting new tile on her bathroom floor. Each tile measures 2 inches on each side. The bathroom floor is 3 feet long and 2 feet wide. How many tiles will she use to cover the entire floor?

216 tiles

LESSON 1-4 Reteach
Order of Operations

A mathematical phrase that includes only numbers and operations is called a numerical expression.

$9 + 8 \cdot 3 \div 6$ is a numerical expression.

To evaluate a numerical expression, you find its value.

You can use the order of operations to evaluate a numerical expression.

Order of Operations
1. Do all operations within parentheses.
2. Find the values of the numbers with exponents.
3. Multiply and divide in order from left to right.
4. Add or subtract in order from left to right.

Evaluate the expression.

$60 \div (7 + 3) + 7$	Do all operations within parentheses.
$60 \div 10 + 7$	Multiply and divide in order from left to right.
$6 + 7$	Add and subtract in order from left to right.
13	

Evaluate each expression.

1. $7 \cdot (12 + 8) - 6$ — $7 \cdot$ _____ $- 6$ — _____ $- 6$ — _____ — 134
2. $10 \cdot (12 + 34) + 3$ — $10 \cdot$ _____ $+ 3$ — _____ $+ 3$ — _____ — 463
3. $10 + (6 \cdot 5) - 7$ — $10 +$ _____ $- 7$ — _____ $- 7$ — _____ — 33
4. $2^3 + (10 - 4)$ — 14
5. $7 + 3 \cdot (8 + 5)$ — 46
6. $36 \div 4 + 11 \cdot 8$ — 97
7. $5^2 - (2 \cdot 8) + 9$ — 18
8. $3 \cdot (12 \div 4) - 2^2$ — 5
9. $(3^3 + 10) - 2$ — 35

LESSON 1-4 Challenge
Crack the Expression Code

Each of these symbols stands for a different operation symbol:

♥ ♠ ♦ ♣

Each of these animals stands for a different whole number 1–4:

Use the equations below to find what each symbol and animal represents in the expression code.

OPERATIONS			NUMBERS		
1. ♥	=	+	5. 	=	4
2. ♠	=	−	6. 	=	2
3. ♦	=	×	7. 	=	1
4. ♣	=	÷	8. 	=	3