

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. $(\underline{\quad} - \underline{\quad}) + \underline{\quad} \cdot \underline{\quad} = 11$

12. $\underline{\quad} \cdot \underline{\quad} - (\underline{\quad} \div \underline{\quad}) = 6$

13. $\underline{\quad} + (\underline{\quad} \cdot \underline{\quad}) \cdot \underline{\quad} = 30$

14. $\underline{\quad} \div \underline{\quad} + \underline{\quad} \cdot \underline{\quad} = 20$

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

Insert parentheses so that each equation is correct.

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

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

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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

- Do all operations within parentheses.
- Find the values of the numbers with exponents.
- Multiply and divide in order from left to right.
- 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. $7 \cdot (12 + 8) - 6$ <u>134</u> | 2. $10 \cdot (12 + 34) + 3$ <u>463</u> | 3. $10 + (6 \cdot 5) - 7$ <u>33</u> |
| 4. $2^3 + (10 - 4)$ <u>14</u> | 5. $7 + 3 \cdot (8 + 5)$ <u>46</u> | 6. $36 \div 4 + 11 \cdot 8$ <u>97</u> |
| 7. $5^2 - (2 \cdot 8) + 9$ <u>18</u> | 8. $3 \cdot (12 \div 4) - 2^2$ <u>5</u> | 9. $(3^3 + 10) - 2$ <u>35</u> |

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LESSON 1-4 Practice C
Order of Operations

Evaluate each expression.

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

Insert parentheses so that each equation is correct.

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

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

11. $(\text{ } - \text{ }) + \text{ } \cdot \text{ } = 11$ $(6 - 3) + 2 \cdot 4$

12. $\text{ } \cdot \text{ } - (\text{ } \div \text{ }) = 6$ $2 \cdot 4 - (6 \div 3)$

13. $\text{ } + (\text{ } \cdot \text{ }) \cdot \text{ } = 30$ $6 + (2 \cdot 3) \cdot 4$

14. $\text{ } \div \text{ } + \text{ } \cdot \text{ } = 20$ $4 \div 2 + 6 \cdot 3$

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





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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.

| | |
|---|---|
|  ♥  = 7 |  ♥  =  |
|  ♦  =  |  ♦  =  |
|  ♣  =  |  ♠  =  |

| | |
|-------------------|---|
| OPERATIONS | NUMBERS |
| 1. ♥ = <u>+</u> | 5.  = <u>4</u> |
| 2. ♠ = <u>-</u> | 6.  = <u>2</u> |
| 3. ♦ = <u>×</u> | 7.  = <u>1</u> |
| 4. ♣ = <u>÷</u> | 8.  = <u>3</u> |

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