

You must complete this before retaking the MC again. Remember it is all about LEARNING so take your time and learn how to do these skills. If you need help please ask!

NAME: _____

Corrective Assignment 1.1

Evaluate Expressions & Order of Operations

Evaluate Numerical Expressions Numerical expressions often contain more than one operation. To evaluate them, use the rules for order of operations shown below.

Order of Operations	<p>Step 1 Evaluate expressions inside grouping symbols.</p> <p>Step 2 Evaluate all powers.</p> <p>Step 3 Do all multiplication and/or division from left to right.</p> <p>Step 4 Do all addition and/or subtraction from left to right.</p>
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Simplify		
1. $\frac{6 \times 2}{5 - 3}$	2. $(1 + 6)^2 + 3$	3. $5 + 3 \times \frac{16}{4}$
4. $15 - 12 \div 4$	5. $12(20 - 17) - 3 \cdot 6$	6. $24 \div 3 \cdot 2 - 3^2$
7. $\frac{16}{6 - 3 + 1}$	8. $3^2 \div 3 + 2^2 \cdot 7 - 20 \div 5$	9. $\frac{2 \cdot 4^2 - 8 \div 2}{(5 + 2) \cdot 2}$
10. Simplify the expression $7 + 2\sqrt{25 \times 2 + 50}$	11. Simplify the expression $ 3 - 4 - 2 \cdot 7 + 2 $	12. Simplify the expressions $\frac{7 + 5 - 8 }{ 2 + 3 }$

Evaluate Algebraic Expressions Algebraic expressions may contain more than one operation. Algebraic expressions can be evaluated if the values of the variables are known. First, replace the variables with their values. Then use the order of operations to calculate the value of the resulting numerical expression.

Example: Evaluate $x^3 + 5(y - 3)$ if $x = 2$ and $y = 12$.

$x^3 + 5(y - 3) = 2^3 + 5(12 - 3)$	Replace x with 2 and y with 12.
$= 8 + 5(12 - 3)$	Evaluate 2^3 .
$= 8 + 5(9)$	Subtract 3 from 12.
$= 8 + 45$	Multiply 5 and 9.
$= 53$	Add 8 and 45.
	The solution is 53.

Evaluate each expression:

13) $y(x - 1) - x$; use $x = 4$, and $y = 3$

14) $(m - n)^3 - m$; use $m = 3$, and $n = 1$

15) $q + pq + p$; use $p = 2$, and $q = 4$

16) $x - \left(x - \frac{z}{2}\right)$; use $x = 5$, and $z = 2$

17) $3 + y + x - 3$; use $x = 1$, and $y = 6$

18) $\frac{p - (q - p)}{2}$; use $p = 2$, and $q = 2$

19) $z + y + y^2$; use $y = 5$, and $z = 6$

20) $j^2 + \frac{h}{2}$; use $h = 2$, and $j = 2$

21) $p(m - n) + 2$; use $m = 6$, $n = 1$, and $p = 3$

22) $5 + j - h + 1$; use $h = 1$, and $j = 5$

23. Evaluate the expression
Given $a = 4$, $b = 5$ and $c = 3$

$$\frac{a(b^2 - ac)}{a(ab + 2)}$$

24. Evaluate the expression
Given $a = 4$, $b = 5$ and $c = 3$

$$\frac{b^2 - c}{20(c) + 2(c)}$$

25. $\frac{10}{21}n^2$ when $n = \frac{3}{5}$

26. $x - 3y$ when $x = -0.6$ and $y = 1.2$

ANSWERS TO CORRECTIVE ASSIGNMENT:

Make sure you check all your answers and make sure you KNOW how to do all of them. You could simply copy answers but that's not the point. The point is that you have to learn how to do this so please make sure that for any you don't understand you get help BEFORE taking the Mastery Check again.

1) 6

2) 52

3) 17

4) 12

5) 18

6) 7

7) 4

8) 20

9) 2

10) 27

11) -17

12) 2

13) 5

14) 5

15) 14

16) 1

17) 7

18) 1

19) 36

20) 5

21) 17

22) 10

23) $13/22$

24) $1/3$

25) $6/35$

26) -4.2