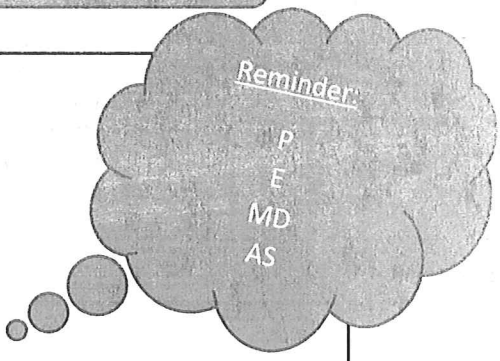
Practice 1 – Order of Operations

Objective: To evaluate expressions using the order of operations.



Example:

Simplify $9 \div 3 + 4 \cdot 7 - 20 \div 5$

$3 + 4 \cdot 7 - 20 \div 5$	Divide 9 by 3.
$3 + 28 - 20 \div 5$	Multiply 4 and 7.
$3 + 28 - 4$	Divide 20 by 5.
$31 - 4$	Add 3 and 28.
27	Subtract 4 from 31.

Find the value of each expression. Show ALL work.

1. $4 \cdot 16 + 8 - 0 \div 5$

2. $8 + \left[(16 - 6) \div 2\right]$

3. $16 - 3\left[9 - 2(5 - 3)\right]$

4. $8(3 + 4) - 2 \cdot 8 \div (5 - 3)$

5. $\dfrac{30}{3(5-3)}$

6. $(10^2 - 4 \cdot 8) \div (8 + 9)$

Insert parentheses to make the following equations true:

7. $8 + 12 \div 4 \cdot 5 = 1$

8. $14 - 2 + 5 - 3 = 4$

Practice 2 – Using Variables

Objective: To model relationships with variables.

Examples:

Write an algebraic expression for each phrase.

seven more than n	$n+7$	**"More than" indicates addition**
the difference of n and 7	$n-7$	**"Difference" indicates subtraction**
the product of seven and n	$7n$	**"Product" indicates multiplication**
the quotient of n and seven	$\frac{n}{7}$	**"Quotient" indicates division**

Write the algebraic expression for each phrase.

1. the quotient of 4.2 and *c*

2. *t* minus 15

3. 4 more than *p*

4. the product of *c* and 15

5. 6 more than 5 times *n*

6. 7 minus the product of *v* and 3

Define variables and write an equation to model each situation.

7. The total cost is the number of cans times $.70.

8. You have $20. Then you buy a bouquet. How much money do you have left?