**Pre-Calculus Honors Ms. Grosse**

**Objective 0.3: Rational Exponents & Order of Operations Unit 0 Day 3**

**Order of Operations: GEMDAS**

1. (3 – 5)2 – (2 + (4)(3)) =
2. Does 2 - 5(4x) = 3(4x)? Why?
3. Does (4x) + 7 = 4x + 7?
4. Put in parenthesis so that this is a correct statement: 7 – 9 2 x 5 + 3 = 23

**Inverse Operations**

1. x – 4 = 0
2. y / 2 = 2
3. 2 – x = -14
4. Solve for x. 3 / (x + r) = k
5. Solve for r. z – (e + r) = e

**Associative Property**

Problem 1: (x + y) + z = x + (y + z) Problem 2: (xy)z = x(yz)

Are parentheses necessary or will the expression be the same without them? Explain why you can take them out or not

1. Does (xy)zw = xyzw?
2. 6 – (7x3)
3. (c + y) + r + (t + s)
4. (wt)(rd)
5. (trx) + (t + r)
6. Does 2 - 5(4x) = 2 + 20x?

**Distributive Property**

Problem 1: 2(4 - x) = **8 – 2x** Problem 2: (3c)4 = 34c4 = **81c4**

Problem 3: (x + 3)2 = (x + 3)(x + 3) = **x2 + 6x + 9**

Can we get rid of the parenthesis by distributing? If so, work it out on your paper!

1. 4(x + 3)
2. (2x – 4)2
3. (x2y)3

**“Implied” parenthesis**

1. Imagine you’re trying to square the number -17 in your calculator. You enter -172. Is this correct?



1. If you were going to put this in your calculator, how would you?
2. Remove all unnecessary parentheses: (-2)2 + 5(x + 3)
3. Does √(36)(2) + 3/(2)(4) = √(36 \* 2) + 3 / (2 \* 4)? Explain.
4. (-3)2 – 2(3 + 5) + =

**Practice Activity: Pick 6, get a B; Pick 7, get an A!** Pick any of the following and complete on a separate sheet of paper. Then turn it in for a grade!

Are the following true or false?

1. (x \* y) + 42 = xy + 16
2. (3 – 4) + (-3 + x) = 3 + (-4 – 3) + x
3. (c3)1/2 = c3/2
4. (td)3 = td3
5. (g – 3)2 = g2 - 32
6. m(t + l) = mt + ml
7. r(ts) = rts
8. 4(w2)3 = 43w6
9. √4 + 3/2 – 2(c+ t) = √(4 + 3)/2 – 2c+ t
10. 2 / 3 – 3 / x = 2 / (3 - 3) / x