MPM 1D Unit 1 Handout #3
Order of Operations Part 1 (No Fractions)

Date: **Name:**

No matter what type of numbers or expressions we are working with, we ALWAYS need to follow the correct order of operations.

Brackets – Simplify the stuff inside them as much as you can!
Exponents – Apply them to the term that they belong to. Remember that exponents represent repeated multiplication!!
Division
Multiplication } in the order that they appear from left to right.
Addition
Subtraction } in the order that they appear from left to right. Continue to combine double signs and apply integer rules!!

Part 1: Do the Math

Evaluate each of the following. Show the process that you followed. Your calculator is there to help you, not to do the work for you. Also, work to show the combination of double signs, even when they are opposites.

1) $8 - (3 + 4)^2 + (-10)$

2) $\frac{(-5)(-4)}{-9-(-5)} + (3 - 2^2 - 2)$

3) $(-2)^3 - (-3 - 2)^2 + 21 \div 7$

4) $5[(4^3 - 8) + (-24)]$

5) $-4 \times (2^3 - 8) \div (-4)$

6) -8 + (-7) – (2 – 10) + (-4)(3)

7) $-2^2 + (-3)^3 - (5 \times 6 \div 3)^2$

8) $3 - \left(2^2 - \frac{(3)(-6)}{1-10}\right) + (-5)$

Part 2: Explain the Math

1. Briefly summarize the process of applying BEDMAS (summarize your note in point form). Then clearly explain what an exponent represents.

2. A student's solution for question 7 is provided below. Identify their error and clearly explain what went wrong and how they can correct it for next time.

$$-2^2 + (-3)^3 - (5 \times 6 \div 3)^2$$

Part 3: Apply the Math

Tyler won a bike on Roll Up the Rim but has to answer a skill testing question to claim his prize. Solve the problem and show all of your work!

$$7^3 + 3(4 \times 5 - 2^2 - 28 \div 7 + 3) + 9 + \frac{3+5}{1-3}$$