

Name: _____ Date: _____

MPM1D: Choice Assignment #3
Due: Thursday, March 8th, 2018

Please solve **eight** of the following **ten** questions. Good luck and have fun.

1) Solve for x:

a) $3(2x + 4) - 2(x + 5) = 8(x + 3)$ b) $2(x - 9) - 5(3x + 1) = -3(2x + 4)$

2) Solve for x:

a) $\frac{x+3}{4} = \frac{5x-3}{2}$ b) $\frac{2x-3}{3} = \frac{x-3}{4}$

3) The equation for energy is $e = mc^2$

a) Isolate this equation for **c**

b) Isolate this equation for **m**

c) If $e = 28000$ and $m = 0.03$, what is c equal to?

4) For each of the following use **let** statements and make an equation for the scenario and then solve it

a) three consecutive numbers have a sum of 159. What are the numbers?

b) Alexa and Madison T. work at a store. Together they make \$2200. If Madison T. makes \$150 more than Alexa, how much do each make?

5) Solve for x:

a) $3(x - 3) + 4(2x - 4) + 5(x - 3) = 2(4x - 3)$ b) $\frac{2}{3}x + \frac{1}{4} = \frac{1}{2}x$

6) Solve for x:

a) $\frac{3}{4}x - \frac{1}{3} = \frac{2}{3}x - 2$ b) $\frac{2}{5}x - \frac{1}{4} = 3x + \frac{9}{2}$

7) The equation for acceleration is $a = \frac{v_2 - v_1}{t}$

a) Isolate **t** in this equation

b) Isolate v_2 (the final velocity) in this equation

c) If $a = 3$, $t = 5$, and $v_1 = 8$, what is the value of v_2 ?

8) Bram works at a phone store where he earns \$10 per hour and a commission of \$3 per phone. If he works 35 hours this week, how many phones must he sell in order to make \$407? (**Please make an equation for this scenario and use a let statement**)

9) Solve for x

$$\frac{2}{3}(3x+4) + \frac{5}{6}(x+1) = \frac{5}{4}(2x-3)$$

10) Solve for x:

$$\frac{3}{4} \left[\frac{2}{3}(x+1) + \frac{1}{2}(5x-1) \right] = 1$$

Hint: Use BEDMAS!