

Name: _____ Date: _____

MPM1D: Choice Assignment #2
Due: Thursday, February 22, 2018

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

1) The amount of money that Matthew has goes up by 50% every two years. If he begins with \$100,

a) Complete the table up to twelve years (round to the nearest penny)

b) How much money will he have in forty years if the pattern continues (round to the nearest penny)?

Year	Money	Calculation	Exponential Form
0	100		
2	150	$100(1.5)$	
4	225	$100(1.5)(1.5)$	_____ ?

2)
$$\frac{(3xy^4)^2(3^3x^2y)^3}{(3^2x^3y^2)^2}$$

3)
$$\frac{(2^2xy^3)^2(3x^4y)^3}{(4x^2y^4)^4}$$

4)
$$\left[\frac{(2x^3yz^2)^3(2^2xy^3z)^4}{(2^3y^2z^5)^2} \right]^2$$

5) The amount of money that a person has can be a combination of quarters, loonies, toonies, five dollar bills and ten dollar bills.

a) Write an expression for the amount of money that a person has (remember to include "let" statements to declare what your variables are)

b) If a person has 5 quarters, 3 loonies, 2 toonies, 3 five dollar bills and 4 ten dollar bills, how much money will they have?

c) List five possible ways that someone may have \$22.25 (using your expression above)

6) Simplify the following

a) $5x + 3x + 2x$

b) $13x - 18x + 5x$

c) $3x + 2y + 5x - 3y + 2x - y$

7) Simplify the following

a) $3(2x + 5x + 3y) + 2(x + 5y)$

b) $4(2x + 3y + z) - 2(x + 5y - 2z)$

8) Simplify the following

a) $5(x + 2y + 3z + 4c) - 3(2x + y + 5z + c)$

b) $3(2x + 5x + y + z) - 2(2x - 3z - y)$

9) Simplify the following: (hint: BEDMAS)

$10(3x + 2y + 5z + 6w) - 4(x + 5(2x^2 + 3y) - 4(w - 2z))$

10) Simplify the following: (hint: BEDMAS)

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