Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2nd MP Review Packet:

100-point assignment: 50 point assignment for completing and showing all work

 50 point XC opportunity based on percentage correct.

 Example: Packet score = 80 percent

 40/50 for quiz grade

 40 XC points for quiz category in Gradebook

ALL WORK MUST BE SHOWN TO RECEIVE CREDIT!!!

SHOW WHAT YOU KNOW. SHOW SET-UP AND SUPPORTING WORK WHEN APPLICABLE.

All problems are topics we’ve studied in class during the first marking period. Use your journal, classwork, homework, and graded tests as a resource to show and solve the problems.

Exponent Operations

Simplify the following expressions. Show in exponential form. (1 pt each)

74 • 75 \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ $x^{10} ÷ x^{7}$ \_\_\_\_\_\_\_\_\_\_\_\_

$\left(6^{5}\right)^{3} $\_\_\_\_\_\_\_\_\_\_\_\_ $\left(5^{2} •3^{2}\right)$ \_\_\_\_\_\_\_\_\_\_ $\left(11^{3} • 3^{4}\right)^{5}$ \_\_\_\_\_\_\_\_\_\_\_

$\left(a^{4}b^{3}\right)^{2}$ \_\_\_\_\_\_\_\_\_\_ $\frac{g^{8}}{g^{5}}$ \_\_\_\_\_\_\_\_\_\_ $\frac{d^{5}e^{4}f^{10}}{d^{3}e^{4}f^{9}}$ \_\_\_\_\_\_\_\_\_\_\_

Scientific Notation

Express in Scientific Notation: (1 pt each)

283,050,000 .005 .0003004

Express in Standard Notation:

2.003 x 108 2.015 x 10-5 1.08 x 106

Perform Operations to solve: All answers and work must be in scientific notation. (2 pts each)

(5.7 • 10-4) + (2.9 • 10-3) (8.65 • 108) $-$ (7.5 • 107)

(6.6 • 10-5) $×$ (2.2 • 10-3) (8.84 • 109) ÷ (2.6 • 104)

Multi Step Equations

Solve for the missing variable. Show all work (2 pts each)

$\frac{2p}{5}+6=16 $ 24 = $\frac{q}{3}+19$ 2 (r + 4) = 3 (2r – 8)

3x + 6 + 5x = 105 3y + 6 = 5y + 104 2 (3z – 4) = 10

6a – 2 (a – 5) = 2a – 12 ½ (6b – 10) + 2b = b + 3 $\frac{c}{3}+2 \left(3c+1\right)=8c-18$

Constant Rate

Mrs. Bitterspoon types 1,275 words over a 15-minute span. Use this information to answer the following questions below:

What is the x variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1 pt)

What is the y variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1 pt)

What is the constant rate? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1 pt)

Using your x and y variables and constant rate, write an equation to represent this scenario:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1 pt)

Complete the table below: (2 pts) Use the table to complete the graph:

(Include at least 4 values) Label your axis and show values: (2 pts)

x y

 

If she were to continue typing at the same constant rate for 45 minutes, how many words would she type?

Use the equation from above, and show how you set up and solve. (2 pts)

Linear Equations

Based on the following graphs below, write a linear equation in slope-intercept form for each graph (3 pts each)

 

m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

equation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ equation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Are the following ordered pairs solutions to the given linear equations? (2 pts each)

Show all work.

(9, 2); y = 2x – 8 (-5, 3); y = -x – 2 (3, -6); y = $\frac{1}{3}$ x – 7

Put the following equations into slope-intercept format. Identify the slope and y-intercept. Then graph the equations. (4 pts each)

-10x – 5y = -15 4x + 12 y = 36

Equation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Equation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_\_\_\_

b = \_\_\_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_

  

A line goes through the following two points. Identify the slope, y-intercept, and write an equation to represent the line. (3 pts each)

(0, 5) (2, -3) (-2, -4) (8, 1)

m = \_\_\_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_\_\_\_

b = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_

Linear Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Linear Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mr. Linderman has 80 pencils at the beginning of the day. He gives 8 pencils away to students every hour. Write an equation for this scenario, identify the slope and y-intercept, and graph the line for this equation. Be sure to label your x and y axis with units, and identify the scale of your graph. (5 pts)

m = \_\_\_\_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_\_ Equation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Using the equation from above, how many pencils would Mr. Linderman have left after 6 hours. Show your work. (2 pts)