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

1st 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.

Word Problems

Lakeside Club rents boats for a cost of $12 plus $2.50 per hour. Tammy rents a boat and is charged a total cost of $24.50. How many hours did she rent the boat?

What are they asking? (1 pt)

What do they tell us? (2 pt)

What key words do you see? (2 pt)

Set up the number sentence and solve (2 pts):

Integers (Must show set-up – Look at our rules for each operation) (1 pt each)

(-8) + 3 (-19) + (-8) (-8) – 5 7 – (-11)

(-9)(5) (-11)(-4) (-28) ÷ (-4) (-132) ÷ 11

1-and-2-step equations for Missing Variable (Show all steps) (3 pts each)

$x-17=12$ 12 + y = 3 2z – 9 = 27 17 + 3a = 50

3b = 51 $\frac{c}{5}=12$ $12+\frac{d}{4}=11$ (-5) – 6e = 37

Rational Numbers

Convert decimals to fractions in simplest terms: (2 pts each)

1.8 = \_\_\_\_\_\_\_\_\_\_\_\_ .36 = \_\_\_\_\_\_\_\_\_\_ 2.104 = \_\_\_\_\_\_\_\_\_\_

Convert fractions to decimals: (2 pts each)(Calculators are allowed, but you must show how you set up problem)

$\frac{5}{8} $= \_\_\_\_\_\_\_\_\_\_\_\_ $3\frac{5}{6}$ = \_\_\_\_\_\_\_\_\_\_\_ $4 \frac{3}{20} $= \_\_\_\_\_\_\_\_\_\_\_

Irrational Numbers, Exponents and Roots

Simplify: Show in expanded form and final answer: (2 pts each)

34 = \_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_ 63 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

(-2)5 = \_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_ $\left(\frac{3}{4}\right) $3 = \_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Tell whether each number is rational or irrational (1 pt each)

$2.8\overline{33}$ \_\_\_\_\_\_\_\_\_\_\_ 10.25 \_\_\_\_\_\_\_\_\_\_\_ 8.278489290253 … \_\_\_\_\_\_\_\_\_

$\sqrt{225} $\_\_\_\_\_\_\_\_\_\_\_\_ $\sqrt{231}$ \_\_\_\_\_\_\_\_\_\_\_ $7\frac{2}{3} $\_\_\_\_\_\_\_\_\_\_\_\_

Approximate the value of the following irrational numbers: (2 pts each)

$\sqrt{7}$ is between \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_. It is closer to \_\_\_\_\_\_\_\_\_

$\sqrt{78}$ is between \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_. It is closer to \_\_\_\_\_\_\_\_\_

$\sqrt{109} $ is between \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_. It is closer to \_\_\_\_\_\_\_\_\_

$\sqrt[3]{655}$ is between \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_. It is closer to \_\_\_\_\_\_\_\_\_

<, >, or = : (1 pt each)

14 \_\_\_\_\_\_\_\_\_ $\sqrt{200}$ $\sqrt{256} $\_\_\_\_\_\_\_\_\_ 16 $\sqrt[3]{1000}$ \_\_\_\_\_\_\_\_ 10.05

Using roots to solve problems: (3 points each)

A cubic box has a volume of 729 cubic inches. What is the height of the box?

The Howards have a square rug with an area of 169 square feet. Their new living room is a rectangle measuring 12’ w by 15 l. Will the rug fit in their new living room? Show why or why not.

Exponent Operations

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

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

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

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

Negative and Zero Exponents

Simplify: (1 pt each)

3.1250 = \_\_\_\_\_\_\_\_\_\_\_ 2-3 = \_\_\_\_\_\_\_\_\_\_\_ x-5 = \_\_\_\_\_\_\_\_\_\_\_\_

Use what we know about order of operations and exponents to solve each expression: (Show all steps) (2 pts each)

$5 \left(3\right)^{3}$

$2^{4} \left(5+3\right)^{0}$

$\frac{\left(9-1\right)^{1}}{5^{2}-21} $