Study Guide

Chapter 2 Test

2.1: Use Integers and Rational Numbers

- Be able to classify numbers as whole, integer, rational and irrational using all names that apply

Ex: –7 **Ex:** $\sqrt{17}$ **Ex:** $\frac{1}{2}$

- **Be able to order numbers from least to greatest**

Ex: $-\frac{1}{5}, 6, -0.25, \sqrt{3}$

- **Be able to find absolute value and opposites of numbers**

Ex: Evaluate: $-x+|x|$ if $x = -0.75$

2.2: Add Real Numbers:

- Be able to add numbers with same signs and different signs

Ex: –1.7 + (–5.4) + (–*x*) when $x = 2.4$ **Ex:** $|x|+\left(-3\frac{1}{4}\right)+\left(7\frac{3}{10}\right)$ $x = -3\frac{1}{3}$

2.3 Subtract Real Numbers:

- **Be able to rewrite subtraction as addition and follow addition rules**

Ex: –11.2 – 21.7 **Ex:** –18 – (–9) **Ex:** 12.1 – (*y* – *x*)

$x = 2.5$ $y = -3.4$

2.4 Multiply/Divide Real Numbers

- **Be able to multiply and divide numbers with same signs and different signs**

Ex: $-6r(-2r)(-4)$

Ex: $-\frac{1}{5}(-10)(4)(-5c)$

Ex: $13 \div \left(-4\frac{1}{3}\right)$

Ex: $\frac{4x}{3y+x}$ $x = 6$ and $y = -8$

2.5: Apply the Distributive Property

- **Be able to use the distributive property and identify and combine like terms**

Ex: $(p-3)(-8)$

Ex: $3(m+5)-10$

Ex: $6r+2(r+4)$

- **Be able to simplify division problems using the distributive property**

Ex: $\frac{6x-14}{2}$

Ex: $\frac{-24a-10}{-8}$

Ex: $\frac{9z-6}{-3}$

2.7: Find Square Roots and Compare Real Numbers

- **Be able to evaluate square roots, estimate square roots and order square roots**

Ex: $x^2 = 49$

Ex: Estimate $-\sqrt{72}$ between 2 integers