

2.1 – 2.4, 2.6 Quiz
Study Guide

2.1: Real Numbers

- **Order numbers from least to greatest:**

Ex: $0.5, -\frac{1}{2}, 1, 0, \frac{5}{2}$

Ex: $\frac{3}{2}, -0.25, -\frac{1}{5}, 2, 0$

$-\frac{1}{2}, 0, 0.5, 1, \frac{5}{2}$

$-0.25, -\frac{1}{5}, 0, \frac{3}{2}, 2$

- **Find opposites of numbers:**

Ex: Find: $-a$ if $a = -7$

Ex: Find: $-y$ if $y = 3.6$

$-a = 7$

$y = -3.6$

- **Find absolute value of numbers:**

Ex: $|-1.3|$

Ex: $|5|$

Ex: $12 - |-4|$

1.3

5

$12 - 4$
 8

Ex: $|7 - 20| + 5$

Ex: $|-3 + 1|$

Ex: $|4 - 6 + 3|$

$|-13| + 5$
 $13 + 5$
 18

$|-2|$
 2

$|-2 + 3|$
 $|1|$
 1

- **Classify numbers using “whole,” “integer,” and “rational”:**

Classify each of the following numbers using all names that apply:

Ex: -5

Ex: 0.6

Ex: 175

Integer, Rational

Rational

Whole, Integer, Rational

Ex: $\frac{-26}{4}$

Ex: $0.6\bar{1}$

Ex: 1463

Rational

Rational

Whole, Integer, Rational

2.2: Add Integers

- Add numbers with the same signs:

Ex: $-9 + (-17)$
 -26

Ex: $-2 + (-13)$
 -15

Ex: $-21.5 + (-34.2)$
 -55.7

- Add numbers with different signs:

Ex: $-6 + 14$
 8

Ex: $30 + (-17)$
 13

Ex: $8.2 + (-3.5)$
 4.7

2.3: Subtract Integers

- Rewriting subtraction as adding a negative:

Ex: $11 - 41$

$11 + -41$
 -30

Ex: $43 - 56$

$43 + -56$
 -13

Ex: $-18.2 - 3.2$

$-18.2 + -3.2$
 -21.4

- Subtract a negative number

Ex: $15 - (-21)$

$15 + 21$
 36

Ex: $-9 - (-5.6)$

$-9 + 5.6$
 -3.4

Ex: $-33 - (-17)$

$-33 + 17$
 -16

2.4: Multiply Integers

Ex: $60(-3)$

-180

Ex: $-24(-2)$

48

Ex: $15(3)$

45

Ex: $(-12)(-23)$

276

Ex: $(4)(-2)(-8)$

64

Ex: $(3)(-2)(-1)(-5)$

-30

2.6: Divide Integers

Ex: $18 \div (-3)$

-6

Ex: $-24 \div (-1.5)$

16

Ex: $-125 \div (-25)$

5

Ex: $(-15) \div (-3)$
 5

Ex: Evaluate: $xy - xz$
 $(-2)(3) - (-2)(5)$
 $(-2)(3) - (-2)(5)$
 $-6 - -10$
 $-6 + 10$
 4

when $x = -2$, $y = 3$ and $z = 5$