Unit C Operations and Ordering Rational Numbers   Name _____

Unit Review Packet

Directions: Do ALL (A) Questions. Check Your Answers to (A) Questions. If ALL (A) Questions are correct, skip (B) Questions and move onto next "I can" statement. If you get any (A) Questions wrong, MAKE CORRECTIONS and do ALL (B) Questions.

"I Can Add, Subtract, Multiply, and Divide Multi-Digit Decimals and Apply each Operation to Solve Real-World Problems."

A1: $15.67 + 4.972 + 8$

B1: $142.5 + 3.489$

A2: $13.05 - 8.47$

B2: $3.4 - 0.562$

| **A3:** | 18.6 • 0.73 | | | | **B3:** | 1.652 • 8.5 | | |

| **A4:** | 8.25÷0.6 | | | | **B4:** | 19.62÷1.2 | | |

A5: Bethany and Jessica decided to race each other on their scooters. Bethany finished 4.3 seconds before Jessica and won the race. If Jessica finished with a time of 47.2 seconds, how fast was Bethany's time?

A6: Stewart went to the grocery store and bought 2.5 pounds of sour gummy worms that cost $1.78 per pound and a bottle of soda that cost $3.34. What is the total Stewart will pay?

A7: James has $7.85 in nickels. Since each nickel is worth $0.05, how many nickels does James have?

"I Can Explain How Positive and Negative Numbers Relate to Real-World Examples and the Meaning of 0 in each."

A1: A gain of 56 points in a game. _____

A2: A fee charged of $2.50. _____

A3: A temperature of 32 degrees below zero. _____

A4: The diver is 30 feet above sea level. _____

B1: A debt of $40. _____

B2: A deposit of $225. _____

B3: Alex's body temperature dropped 2 degree. _____

B4: A loss of 13 pounds. _____

"I Understand the Relationship of a Number and its Opposite and Can Recognize that the Opposite of a Number's Opposite is the Number itself."

"I Can Explain how the Absolute Value of a number relates its Distance from 0."

A1: The opposite of -4 _____

A6: For $a = 5$ and $b = -3$

$$4a^2 - |b|$$

A2: The opposite of 9 _____

A3: The opposite of $|-12|$ _____

A4: $-(-10)$ _____

A5: $-|5|$ _____

B1: The opposite of 7 _____

B6: For $a = -4$ and $b = -2$

$$|b| + 6 \cdot |a|$$

B2: The opposite of -15 _____
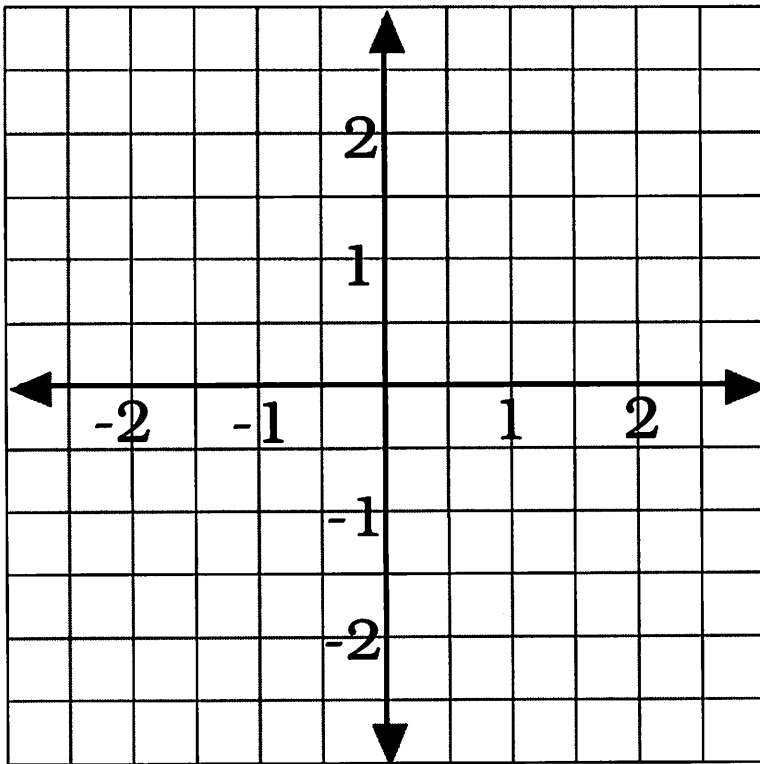
B3: The opposite of $|16|$ _____

B4: $|-20|$ _____

B5: $-|-8|$ _____

"I Can Plot Rational Coordinates in all 4 Quadrants and Explain how the Signs in any Ordered Pair Change in each Quadrant of the Coordinate Graph."

A1:

Plot and label the points and name the quadrant.
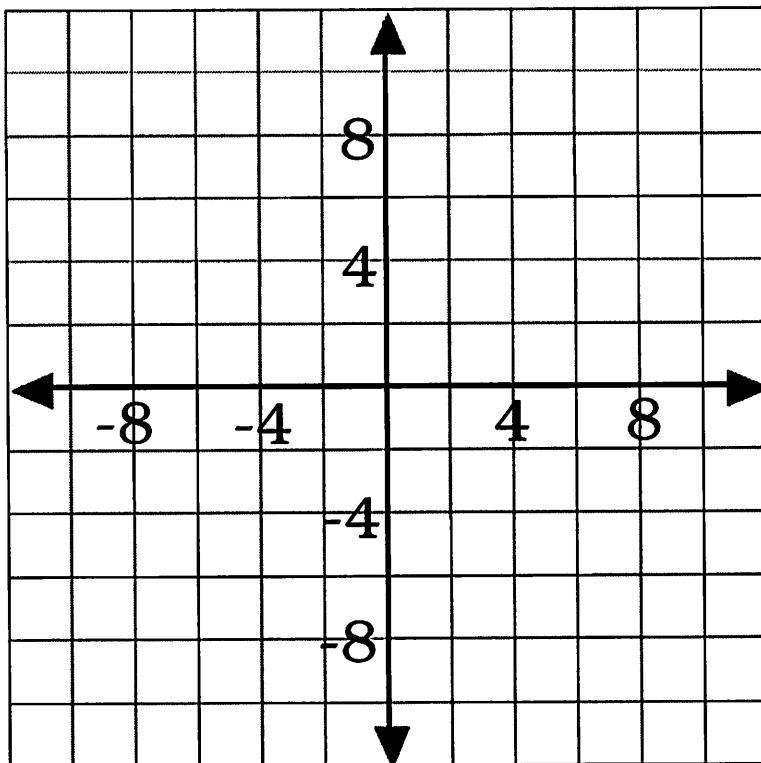
A. $(0, -2.5)$ Quadrant _____

B. $(1\frac{3}{4}, -0.5)$ Quadrant _____

C. $(-2, 2\frac{1}{4})$ Quadrant _____

D. $(-1\frac{3}{4}, -\frac{1}{2})$ Quadrant _____

E. $(1.25, 1.25)$ Quadrant _____

B1:

Plot and label the points and name the quadrant.

A. $(9, -7)$ Quadrant _____

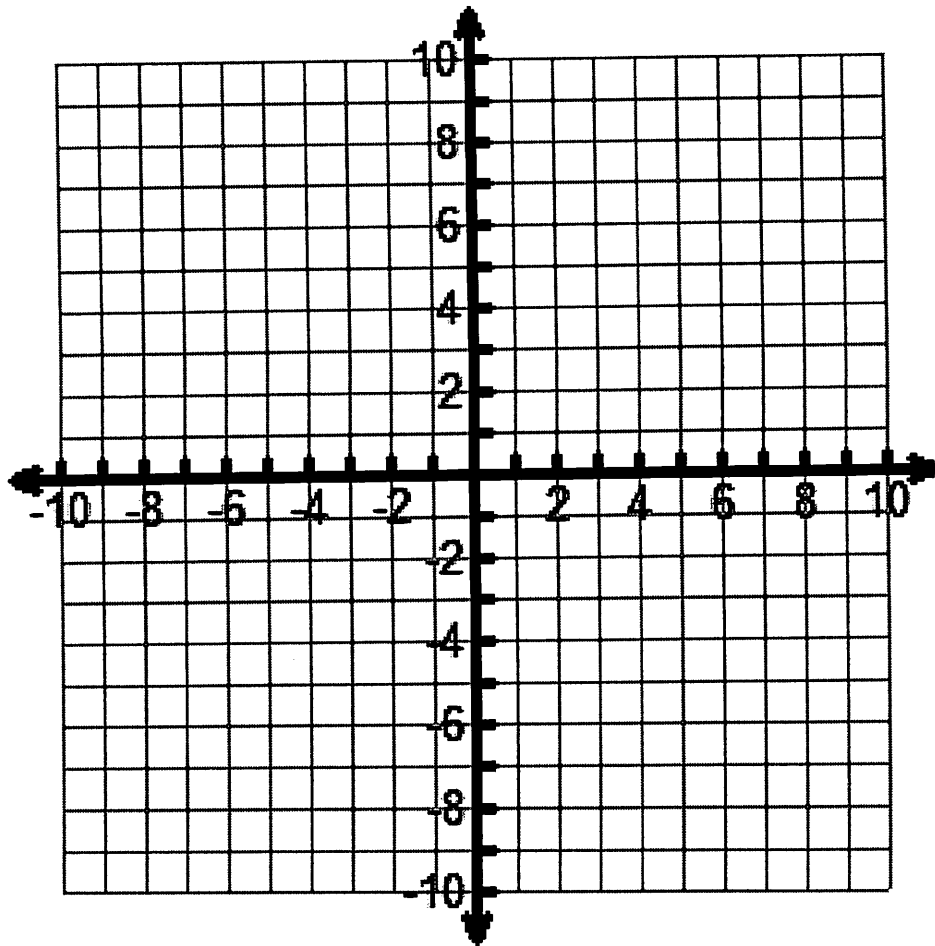B. $(-5, 0)$ Quadrant _____

C. $(-6, -8)$ Quadrant _____

D. $(-10, 3)$ Quadrant _____

E. $(1, 9)$ Quadrant _____

"I Can Find the Vertical or Horizontal Distance Between two points on the Coordinate Plane."

Find the distance between the two points.

A1: (-4, -3) and (-4, 8)   **A2:** (9, -5) and (9, -10)   **A3:** (54, 1) and (-42, 1)

**A4:** Find the distance between (7, 6) and (7, -1) if each unit represents 12 feet.

_____ feet

B1: Plot the points (-5, -2), (-5, 3), (2, 3), and (2, -2) and connect to form a rectangle. If each unit represents 30 centimeters, what is the perimeter of the rectangle?

_____ centimeters

"I Can Explain how Changing the Sign of the Numbers in an Ordered Pair Causes it to Reflect on One or Both Axes."

Fill out the chart below by graphing and reflecting the given point over the indicated axis.
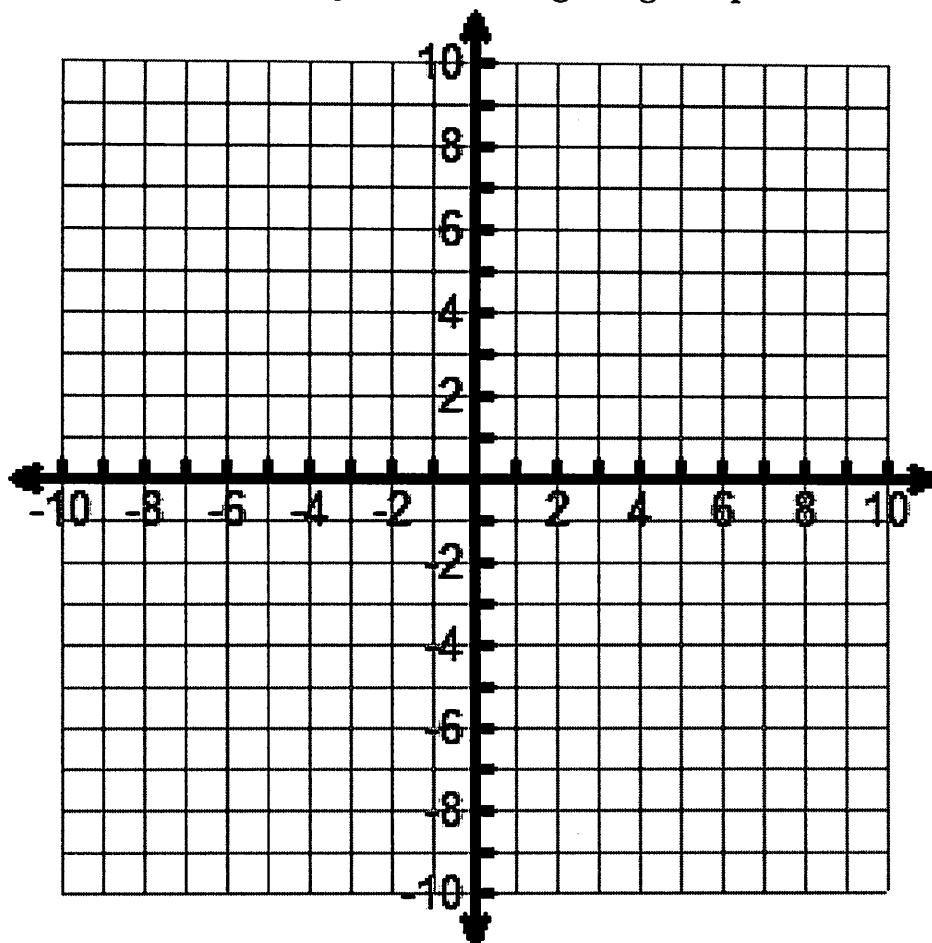
	A1: (-1, -6)	**A**2: (7, -4)	**B**1: (-5, 0)	**B**2: (8, 3)
Reflect over *x*-axis				
Reflect over *y*-axis				
Reflect over *x*-axis first and then reflect over *y*-axis				
Reflect over *y*-axis first and then reflect over *x*-axis				

"I Can Convert Fractions to Decimals and Decimals to Fractions."

Convert the following Fractions to Decimals. (3 decimal places if necessary)

A1: $\dfrac{9}{20}$ **A2:** $\dfrac{3}{7}$ **A3:** $\dfrac{13}{200}$

Convert the following Fractions to Decimals. (#decimal places if necessary)

A4: $0.8 =$ _____   **A5:** $0.16 =$ _____ **A6:** $3.25 =$ _____

Convert the following Fractions to Decimals. (3 decimal places if necessary)

B1: $\dfrac{11}{25}$ **B2:** $\dfrac{1}{12}$ **B3:** $\dfrac{135}{250}$

Convert the following Fractions to Decimals. (#decimal places if necessary)

B4: $0.4 =$ _____   **B5:** $0.08 =$ _____   **B6:** $7.125 =$ _____

"I Can Locate a Rational Number on the Number Line."
"I Can Compare two Rational Numbers on a Number Line and in an Inequality."
"I Can Explain the Meaning of Ordering Rational Numbers in a Real-World Situation."

Integers: > or <

A1:

-4 ☐ -5

A2:

$-|27|$ ☐ $|27|$

A3:

-10 ☐ $|-14|$

B1:

-9 ☐ 15

B2:

$-|-7|$ ☐ $|-21|$

B3:

$|-10|$ ☐ 0

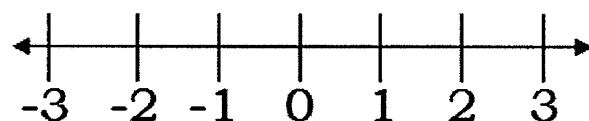|	
A5: Plot the following on the number line. $-\|2\|$, $-\|-3\|$, $\|1\|$, $\|-2\|$ ←┼──┼──┼──┼──┼──┼──┼→ -3 -2 -1 0 1 2 3	**A6:** Put the following numbers in order from **greatest to least.** $-\|26\|$, -28 , $\|27\|$, $-\|30\|$, $-(-25)$
B5: Plot the following on the number line. $\|-3\|$, $\|0\|$, $-\|2\|$, $-\|-1\|$ ←┼──┼──┼──┼──┼──┼──┼→ -3 -2 -1 0 1 2 3	**B6:** Put the following numbers in order from **greatest to least.** $\|15\|$, $-\|-15\|$, $\|-10\|$, $-(-13)$, 11
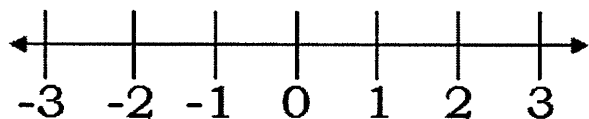
Decimals and Fractions: > or <

A1:

0.347 ☐ 0.34

A2:

$\dfrac{3}{8}$ ☐ $0.\overline{3}$

A3:

$\dfrac{3}{4}$ ☐ $\dfrac{7}{9}$

B1:

35.83 ☐ 35.803

B2:

0.45 ☐ $\dfrac{4}{9}$

B3:

$\dfrac{5}{6}$ ☐ $\dfrac{8}{10}$

Order the following from **least to greatest**.

A1:   5.349 , 5.34 , 5.304 , 5.43 , 5.333

B1:   0.86 , 0.8 , $0.\overline{8}$, 0.809 , 0.089

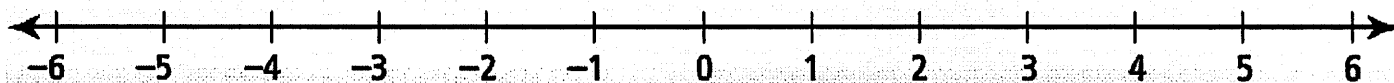**A2:**   0.35 , $\dfrac{2}{5}$, 0.52 , $\dfrac{1}{4}$, 0.403

B2: $\dfrac{5}{6}$, $\dfrac{3}{4}$, 0.55 , $\dfrac{5}{9}$, 0.633

A3: $-2\dfrac{1}{3}$, 4.85 , $3\dfrac{1}{2}$, $3.\overline{9}$, $-2\dfrac{2}{5}$

B3: -1.325 , $\dfrac{1}{8}$, $-1\dfrac{7}{8}$, 1.5 , -2.375

A4: Plot the following rational numbers on the number line.

$$\dfrac{6}{5}, \quad 5.75, \quad -\left|-\dfrac{4}{9}\right|, \quad -5\dfrac{2}{3}, \quad -3.25, \quad \left|-4\dfrac{7}{9}\right|, \quad -\left|-0.25\right|, \quad -\dfrac{20}{10}$$

Unit C: Operations and Ordering Rational Numbers

"I Can Add, Subtract, Multiply, and Divide Multi-Digit Decimals and Apply each Operation to Solve Real-World Problems."

A1: 28.642   **Y**   **N**   **B1:** 145.989   **Y**   **N**

A2: 4.58   **Y**   **N**   **B2:** 2.838   **Y**   **N**

A3: 13.578   **Y**   **N**   **B3:** 14.042   **Y**   **N**

A4: 13.75   **Y**   **N**   **B4:** 16.35   **Y**   **N**

A5: 42.9 seconds   **Y**   **N**   **A6:** $7.79   **Y**   **N**   **A7:** 157 nickels   **Y**   **N**

"I Can Explain How Positive and Negative Numbers Relate to Real-World Examples and the Meaning of 0 in each."

A1: 56   **A2:** −2.50   **A3:** −32   **A4:** 30   **Y**   **N**

B1: −40   **B2:** 225   **B3:** −2   **B4:** −13   **Y**   **N**

"I Understand the Relationship of a Number and its Opposite and Can Recognize that the Opposite of a Number's Opposite is the Number itself."
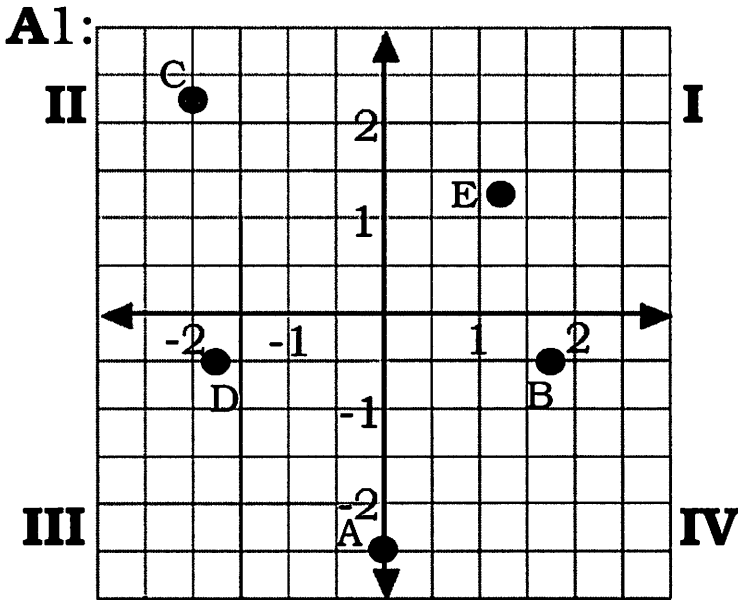
"I Can Explain how the Absolute Value of a number relates its Distance from 0."

A1: 4   **A2:** −9   **A3:** −12

A4: 10   **A5:** −5   **A6:** 97   **Y**   **N**
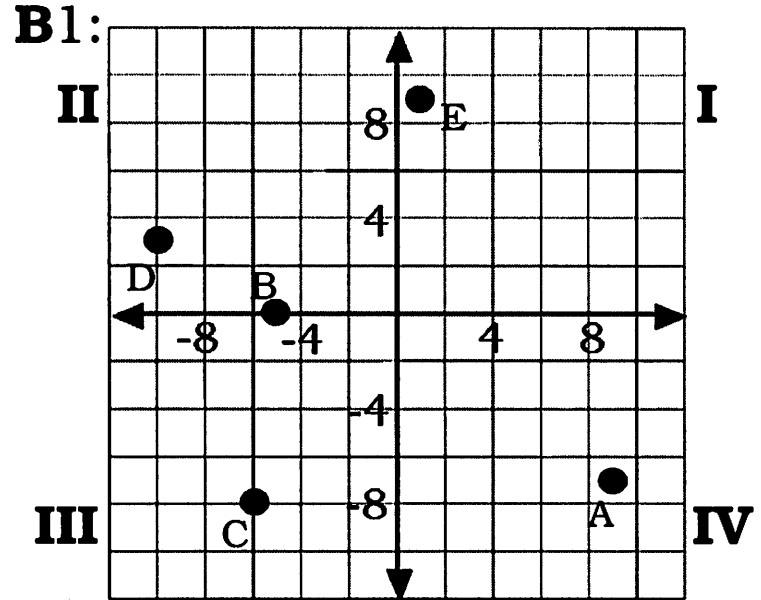
B1: −7   **B2:** 15   **B3:** −16   **Y**   **N**

B4: 20   **B5:** −8   **B6:** 26

"I Can Plot Rational Coordinates in all 4 Quadrants and Explain how the Signs in any Ordered Pair Change in each Quadrant of the Coordinate Graph."

A1:

A: No Quadrant   B: IV   C: II   D: III   E: I

B1:

A: IV   B: No Quadrant   C: III   D: II   E: I

"I Can Find the Vertical or Horizontal Distance Between two points on the Coordinate Plane."

A1: 11 units **Y   N**   **A2:** 5 units **Y   N**   **A3:** 96 units **Y   N**

A4: 84 feet **Y   N**   **B1:** 720 centimeters **Y   N**

"I Can Explain how Changing the Sign of the Numbers in an Ordered Pair Causes it to Reflect on One or Both Axes."

	A1: (-1, -6)	**A2: (7, -4)**	**B1: (-5, 0)**	**B2: (8, 3)**
Reflect over *x*-axis	(-1, 6)	(7, 4)	(-5, 0)	(8, -3)
Reflect over *y*-axis	(1, -6)	(-7, -4)	(5, 0)	(-8, 3)
Reflect over *x*-axis first and then reflect over *y*-axis	(1, 6)	(-7, 4)	(5, 0)	(-8, -3)
Reflect over *y*-axis first and then reflect over *x*-axis	(1, 6)	(-7, 4)	(5, 0)	(-8, -3)

Y   N   **Y   N**   **Y   N**   **Y   N**

"I Can Convert Fractions to Decimals and Decimals to Fractions."		

A1: 0.45   **Y   N**   **A2:** 0.428   **Y   N**   **A3:** 0.065   **Y   N**

A4: $\dfrac{4}{5}$ **Y   N**   **A5:** $\dfrac{4}{25}$ **Y   N**   **A6:** $3\dfrac{1}{4}$ **Y   N**

B1: 0.44   **Y   N**   **B2:** 0.083   **Y   N**   **B3:** 0.54   **Y   N**

B4: $\dfrac{2}{5}$ **Y   N**   **B5:** $\dfrac{2}{25}$ **Y   N**   **B6:** $7\dfrac{1}{8}$ **Y   N**
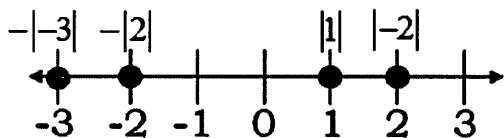

"I Can Locate a Rational Number on the Number Line."
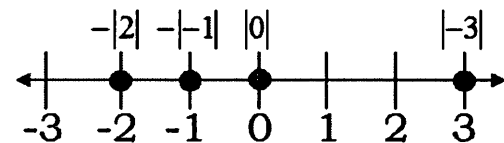**"I Can Compare two Rational Numbers on a Number Line and in an Inequality."**
"I Can Explain the Meaning of Ordering Rational Numbers in a Real-World Situation."

A1: $>$ **Y   N**   **A2:** $<$ **Y   N**   **A3:** $<$ **Y   N**

B1: $<$ **Y   N**   **B2:** $<$ **Y   N**   **B3:** $>$ **Y   N**

A5:

  Y   N

A6: $|27|$, $-(-25)$, $-|26|$, -28 , $-|30|$ **Y   N**

B5:

  Y   N

B6: $|15|$, $-(-13), 11$, $|-10|$, $-|-15|$ **Y   N**

A1: $>$ **Y   N**   **A2:** $>$ **Y   N**   **A3:** $<$ **Y   N**

B1: $>$ **Y   N**   **B2:** $>$ **Y   N**   **B3:** $>$ **Y   N**

A1: 5.304 , 5.333 , 5.34 , 5.349 , 5.43   **Y   N**

B1: 0.089 , 0.8 , 0.809 , 0.86 , $0.\overline{8}$ **Y   N**

A2: $\dfrac{1}{4}$, 0.35 , $\dfrac{2}{5}$, 0.403 , 0.52   **Y   N**

B2: 0.55 , $\dfrac{5}{9}$, 0.633 , $\dfrac{3}{4}$, $\dfrac{5}{6}$ **Y   N**

A3: $-2\dfrac{2}{5}$, $-2\dfrac{1}{3}$, $3\dfrac{1}{2}$, $3.\overline{9}$, 4.85   **Y   N**

B3: -2.375 , $-1\dfrac{7}{8}$, -1.325 , $\dfrac{1}{8}$, 1.5   **Y   N**

A4:   **Y   N**