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Math 6

UNIT 5 – Interactive Notebook

5-1 Inequalities

Name:		Date:	

Common Core Standards	CCSS.MATH.CONTENT.6.EE.B.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. CCSS.MATH.CONTENT.6.NS.C.7.A Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret -3 > -7 as a statement that -3 is located to the right of -7 on a number line oriented from left to right*. CCSS.MATH.CONTENT.6.NS.C.7.B Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write -3 ^{o}C > -7 ^{o}C to express the fact that -3 ^{o}C is warmer than -7 ^{o}C.*

5-1 Inequalities

Writing Inequality Statements

The difference of x and 14 is not greater than 11

Step 1: The difference of x and 14

$$x - 14$$

Step 2: Not greater than 11

$$\leq 11$$

Step 3: Write full inequality expression

$$x - 14 \leq 11$$

Writing Inequality Statements

Problem 1: The ratio of y and 13 is not less than 500.

Step 1: The ratio of y and 13

Step 2: Not less than 500

Step 3: Write full inequality expression

Task Cards

Match the pink card with the blue card with the value that will make the inequality statement TRUE.

1.
$x - 6 \geq 7$

a.
-5

2.
$2x - 1 \leq -11$

b.
32

3.
$\frac{x}{4} - 2 \leq 6$

c.
18

4.
$-7 + x \geq 11$

d.
13

5.
$1 - 3x \leq -8$

e.
3

6.
$\frac{x}{4} + 1 \leq 8$

f.
28

ANSWER KEY

Problem 1

Step 1: $\frac{y}{13}$

Step 2: ≥ 500

Step 3: $\frac{y}{13} \geq 500$

Task Cards

1. **D**

2. **A**

3. **B**

4. **C**

5. **E**

6. **F**