

Name \_\_\_\_\_

Date \_\_\_\_\_

Period \_\_\_\_\_



# Notes Unit 1

## Topic Compare & Order Rational Numbers

Vocabulary  $>$  greater than  
 $<$  less than

### Important Details:

#### 1) Comparing fractions

Cross multiply. Place the numbers up near the numerators.

The larger number is with the larger fraction

Examples:

$$\begin{array}{ccc} 40 & & 42 \\ 5 & \times & 6 \\ 7 & & 8 \end{array} \quad \frac{6}{8} > \frac{5}{7}$$

#### 2) Mixed Numbers

Look only at the fraction because the whole numbers are the same.

$$9\frac{3}{4} > 9\frac{5}{9}$$

$\uparrow$  (17)                      (20)  
 $\frac{3}{4} \times \frac{5}{9}$

#### 3) Comparing Negative Fractions

\*Note: the larger the negative number, the smaller the amount.

$$\begin{array}{ccc} -33 & & -28 \\ -3 & & -4 \\ 7 & & 11 \end{array}$$

$\uparrow$

**Important Details:**

**Examples:**

4) Compare a fraction & a mixed number

$$-\frac{5}{7} \bigcirc -0.7$$

$$7 \overline{) 5} \sim 0.714$$

about

$$-0.714$$

$-0.700 \leftarrow$  this is larger because it is negative.

next, line up the decimal points and compare.

5) Compare a percent to a fraction or decimal

$$62\% \bigcirc 6.2$$

$.62 \quad 6.2$

Note: start by changing the % to a decimal.

$$3\% \bigcirc \frac{3}{10}$$

$.03 \quad .3$

6) Comparing a string of numbers.

$$\frac{4}{5}, 0.5, \frac{1}{3}, 0.65, -\frac{2}{3}, 0.7$$

Change all numbers to decimals or fractions.

$$.8, .5, .\bar{3}, .65, -.66, .7$$

(6) (3) (2) (4) (1) (5)

**Practice:**

1)  $\frac{6}{8} \bigcirc \frac{7}{9}$   $\frac{6}{8} > \frac{7}{9}$

4)  $2.32 \bigcirc \frac{13}{5}$   $5 \overline{) 13} \frac{2.6}{10}$

2)  $6\frac{5}{7} \bigcirc 6\frac{8}{11}$

5)  $1.25\% \bigcirc 10.25$

$1.25 \quad 10.25$

3)  $-\frac{12}{7} \bigcirc -\frac{9}{5}$