

Name:

Period:

### 2-3 Notes

## Int 1

## Compare and Order Rational Numbers

## Unit 2

Rational numbers are

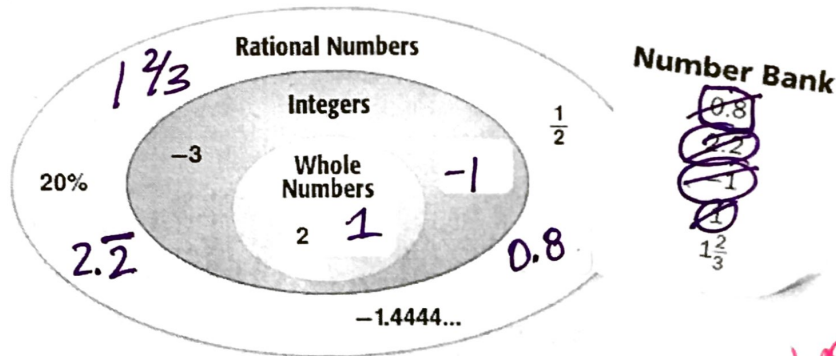
- a # that can be written as a fraction
- terminating or repeating decimal.

Irrational numbers are

Like  $\pi$  CANNOT write it as a fraction <sup>WHOLE#</sup> ~~WHOLE#~~

- decimals are random #'s that go forever.

Write the numbers from the number bank on the diagram.



less than  
greater than

Compare each set of numbers using the following symbols  $<$ ,  $>$  or  $=$ .

- 1)  $0.\underline{6} > 0.\underline{47}$       2)  $0.7 = 0.7000$       3)  $-0.\underline{514} > -0.8\underline{00}$   
 $0.\underline{60} \quad 0.\underline{47}$        $0.7 \quad 0.7$
- 4)  $0.\underline{715} < 0.\underline{900}$       5)  $-0.\underline{254} > -0.\underline{290}$       6)  $0.\underline{44} > 0.433$   
 $0.444 \quad 0.433$

Order the following decimals from least to greatest.

- 7)  $0.87, 0.733, 0.806, \underline{0.733}, \underline{0.806}, \underline{0.87}$   
 $0.870,$
- 8)  $0.567, 0.6, 0.059, \underline{0.059}, \underline{0.567}, \underline{0.6}$
- 9)  $-0.\underline{5}, -0.\underline{32}, -0.\underline{287}, \underline{-0.5}, \underline{-0.32}, \underline{-0.287}$
- 10)  $-0.\underline{388}, -0.\underline{9}, -0.\underline{56}, \underline{-0.9}, \underline{-0.56}, \underline{-0.388}$

<p>Multiple:  <i>Example: Multiples of 2</i>  <i>2, 4, 6, 8, 10, ...</i></p>	<p>Least Common Multiple (LCM):  <i>8: 8, 16, (24), 32, 40, 48, 56</i>  <i>12: 12, (24), 36, 48, 60</i></p>
<p>Denominator:  <i>the # on the bottom of a fraction</i></p>	<p>Least Common Denominator (LCD):  <i>To find a common # for the bottom (denom.)</i></p>

11)  $\frac{7}{8} > \frac{3}{8}$

12)  $-\frac{6}{11} > -\frac{8}{11}$

13)  $-2\frac{3}{7} > -3\frac{5}{7}$

14)  $\frac{35}{42} > \frac{3 \cdot 6}{7 \cdot 6} = \frac{18}{42}$

15)  $\frac{14}{20} < \frac{3}{4} = \frac{15}{20}$

16)  $\frac{24}{40} > \frac{7}{8} = \frac{35}{40}$

Order each set of numbers from least to greatest.

17)  $\frac{4}{5}, -\frac{2}{5}, -\frac{3}{5} = \underline{-\frac{3}{5}}, \underline{-\frac{2}{5}}, \underline{\frac{4}{5}}$

18)  $\frac{5}{6}, \frac{2}{3}, \frac{1}{4} = \underline{\frac{1}{4}}, \underline{\frac{2}{3}}, \underline{\frac{5}{6}}$

19)  $-\frac{1}{3}, 0.56, -0.8, \frac{2}{3} = \underline{-0.8}, \underline{-\frac{1}{3}}, \underline{0.56}, \underline{\frac{2}{3}}$   
 ~~$-\frac{1}{3}, 0.56, -0.8, \frac{2}{3}$~~

20)  $-\frac{1}{4}, -0.3, -0.100 = \underline{-0.3}, \underline{-\frac{1}{4}}, \underline{-0.100}$   
 ~~$-\frac{1}{4}, -0.3, -0.100$~~