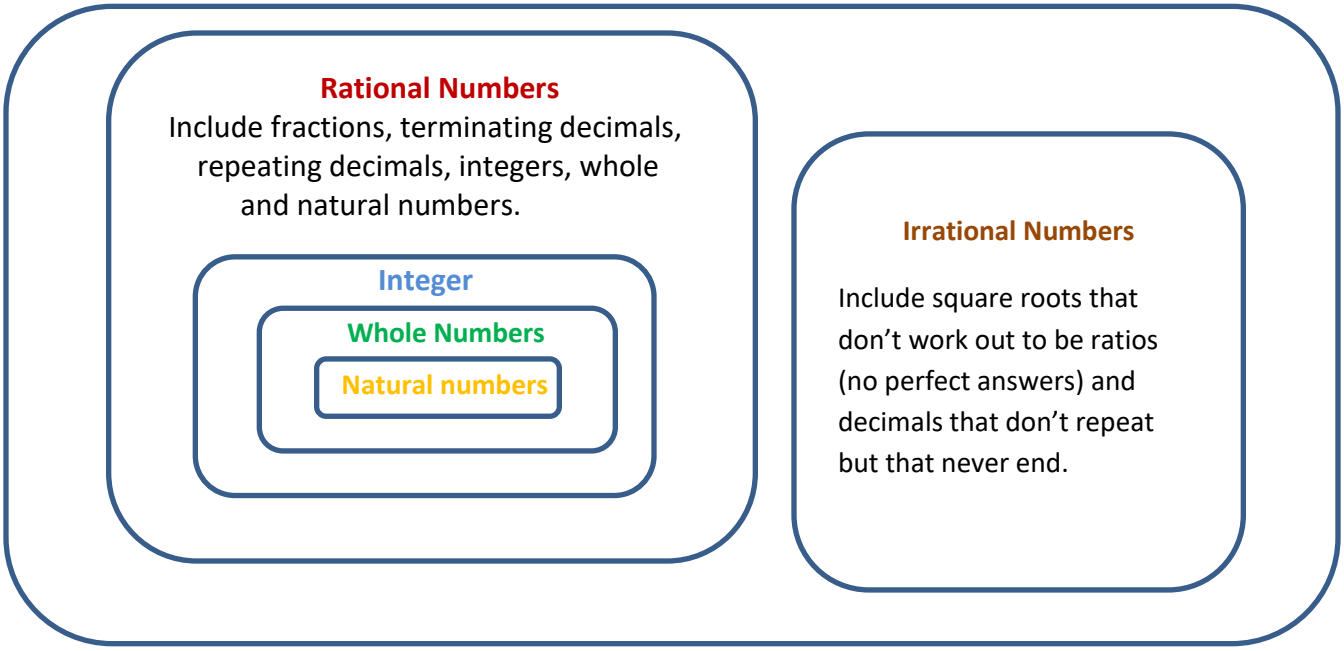
Name: _____ Period: _____ Date: _____

Rational Numbers Guide Notes

Math 8

A rational number is a number that can be in the form $\frac{p}{q}$ where p and q are integers and $q \neq 0$.

A rational number can be made by dividing two integers, or it is a number that can be written as the ratio of two integers.



Sample Problem 1: **Identify each number as rational or irrational.**

a.

$\frac{-2}{4}$	
$12.1\overline{7}$	
$\sqrt{36}$	
$\sqrt{32}$	

b.

$\frac{18}{6}$	
$\pi = 3.141591 \ldots \ldots \ldots$	
$\sqrt{121}$	
$\sqrt{56}$	

Name: _____ Period: _____ Date: _____

Rational Numbers Guide Notes

Math 8

Sample Problem 2: **Write the numbers in order from least to greatest.**

a. $\frac{1}{2}, \quad \frac{2}{3}, \quad \frac{2}{6}, \quad \frac{-5}{6}$

b. $-2.1, \quad -2.13, \quad -2.2, \quad -2.123$

c. $\frac{2}{3}, \quad \frac{-1}{6}, \quad \frac{5}{6}, \quad \frac{-1}{2}$

d. $4.1, \quad -4.1, \quad -3.50, \quad 3.5$

Sample problem 3: **Graph each pair of numbers on the number line. Use the graph and write $<, or > or =$ to compare the numbers.**

a.

$1.5 \square 1\frac{1}{2}$

b.

$-\frac{2}{3} \square \frac{2}{3}$

c.

$4.9 \square -3.4$

d.

$-3\frac{5}{6} \square 4$

Name: _____ Period: _____ Date: _____

Rational Numbers Guide Notes

Math 8

Sample Problem 4: **Identify each decimal as repeating or terminating.**

a.

-0.5	
1.6666	
$2.\overline{3}$	
14.05	

b.

$-0.131313..$	
1.65	
$2.\overline{21}$	
-4.12	