

Rational Numbers Day 1 Organizing

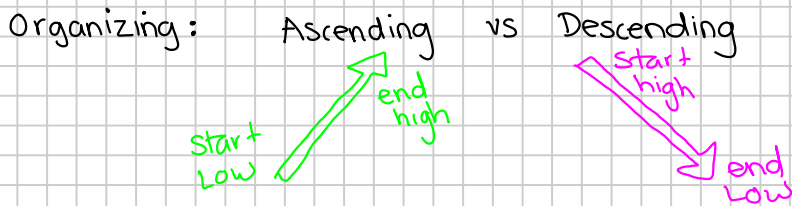
Rational Numbers: most numbers are rational
 can be written as fractions (show division)
 * MUST REDUCE, REPEAT, or END *

ex: $\frac{20}{4} = \frac{5}{1} = 5$ (R) $\frac{6}{10} = 0.6$ (R) $-\frac{2}{3} = -0.\overline{6}$ (R)

↑ ↑ ↑
 base tenth Repeats
 10

Irrational Numbers: can be written as fractions
 only if the fraction does not repeat or
 does not end.

ex: $\pi = 3.12\dots$ $\sqrt{2} = 1.41\dots$ $\frac{5}{0} = \text{impossible}$
 can't divide by zero



* You must write your answer using the numbers original form

ex: Place in ascending order:

$-0.\overline{4}$ $\frac{-3 \times 2 = -6}{5 \times 2 = 10} = -\frac{6}{10}$ $\frac{3 \div 2 = 1.5}{20 \div 2 = 10} = \frac{1.5}{10}$ 0.2 $-\frac{2}{5} = -\frac{4}{10}$

-0.444 -0.6 0.15 0.2 -0.4

② ① ④ ③

$-\frac{3}{5}, -0.\overline{4}, -\frac{2}{5}, \frac{3}{20}, 0.2$