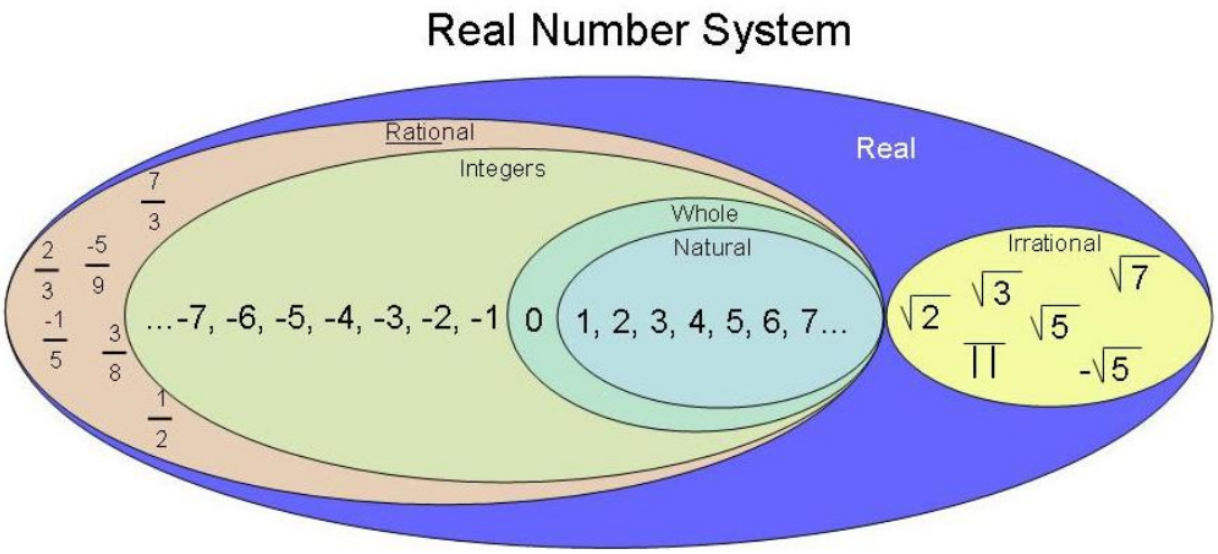
Pg. A1 0.1 - Real Numbers and Their Properties



Rational Number – a number that can be written as a fraction, is a repeating decimal, or is terminating decimal.

Irrational Number – a number that can NOT be written as a fraction, is NOT a repeating decimal, or is not a terminating decimal. In other words, a number that is not rational.

Ex 1:

Determine which numbers in the set are

(a) natural numbers

(b) whole numbers

(c) integers

(d) rational numbers

(e) irrational numbers

$$\sqrt{5},\ -7,\ -\frac{7}{3},\ 0,\ 3.12,\ \frac{5}{4},\ -3,\ 12,\ 5$$

Ex 2:
Give a verbal description of the subset of real numbers represented by the inequality or the interval, sketch the subset on a real number line, and, state whether the interval is bounded or unbounded.

a) $x > 3$ **b)** $0 \le x < 5$

Ex 3:
Use inequality notation to describe the set.

a) All y in the interval $[-6, 0)$ **b)** y is no more than 25