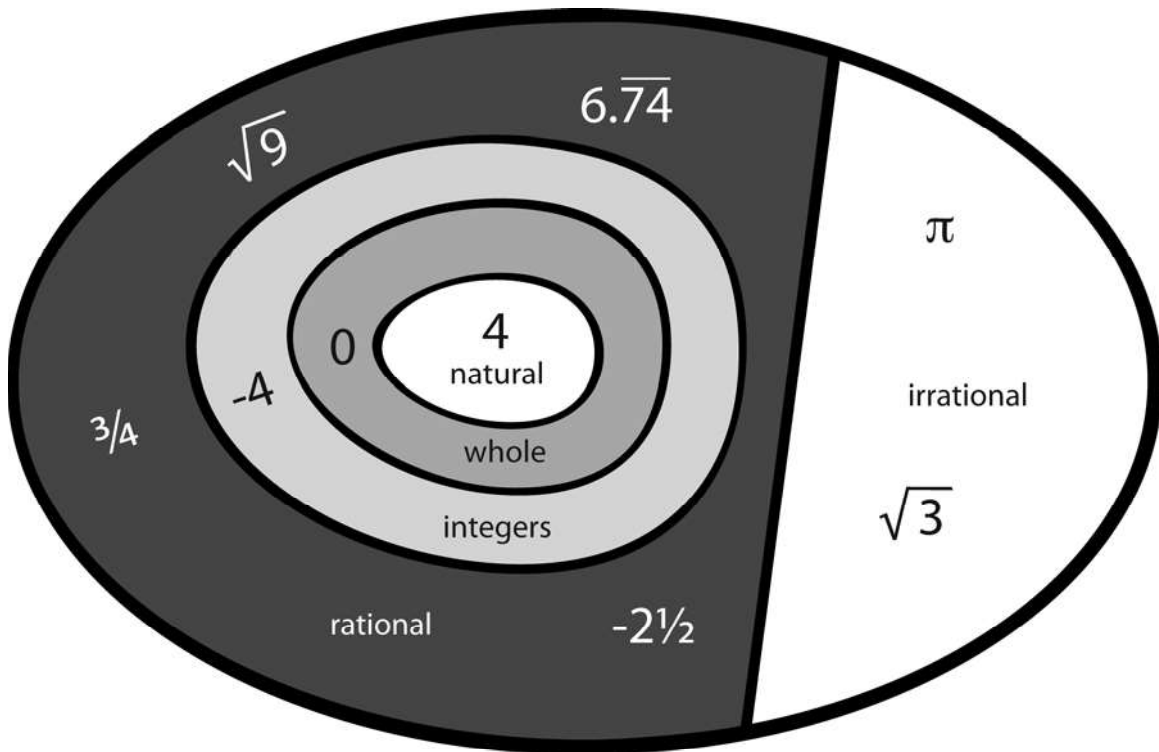


Real Numbers



Natural Numbers: The counting numbers: $\{1, 2, 3 \dots\}$

Whole Numbers: The set of counting numbers plus zero: $\{0, 1, 2, 3 \dots\}$

Integers: The set of natural numbers and their opposites plus zero:

$\{\dots-3, -2, -1, 0, 1, 2, 3 \dots\}$ The set of integers does not include decimals or fractions.

Rational Numbers: Numbers that can be expressed as the ratio of two integers.

Decimal representations of rational numbers either terminate or repeat.

Examples: $2.375, 4, -0.25, -0.\overline{14}$

Irrational Numbers: Numbers that cannot be expressed as a ratio of two integers.

Their decimal representations neither terminate nor repeat.

Examples: $\pi, \sqrt{3}, 0.14114111411114\dots$

Real Numbers: The set of rational and irrational numbers