Handout #01

Classifying Real Numbers

Real numbers are classified into the following groups:

- natural numbers: \(1, 2, 3, 4, 5, \ldots\)
- whole numbers: \(0, 1, 2, 3, 4, \ldots\)
- integers: \((..., -3, -2, -1, 0, 1, 2, 3, \ldots)\)
  note: Integers are numbers on the number line.

- Rational numbers are numbers that can be written as a fraction (ratio)
  example: \(\frac{2}{3}, 0, -5, -\frac{1}{5}, 94\)

- Irrational numbers are numbers that cannot be written as a fraction (ratio)
  example: \(\sqrt{2}, \sqrt{7}, \pi\)

Note: If you entered an irrational number in a calculator, you would get a decimal that continues indefinitely and has NO repeating pattern.