Lesson 1

Symbols and Sets of Numbers

Vocabulary

Natural Numbers are numbers we use for counting. They are 1, 2, 3, 4, and so on.

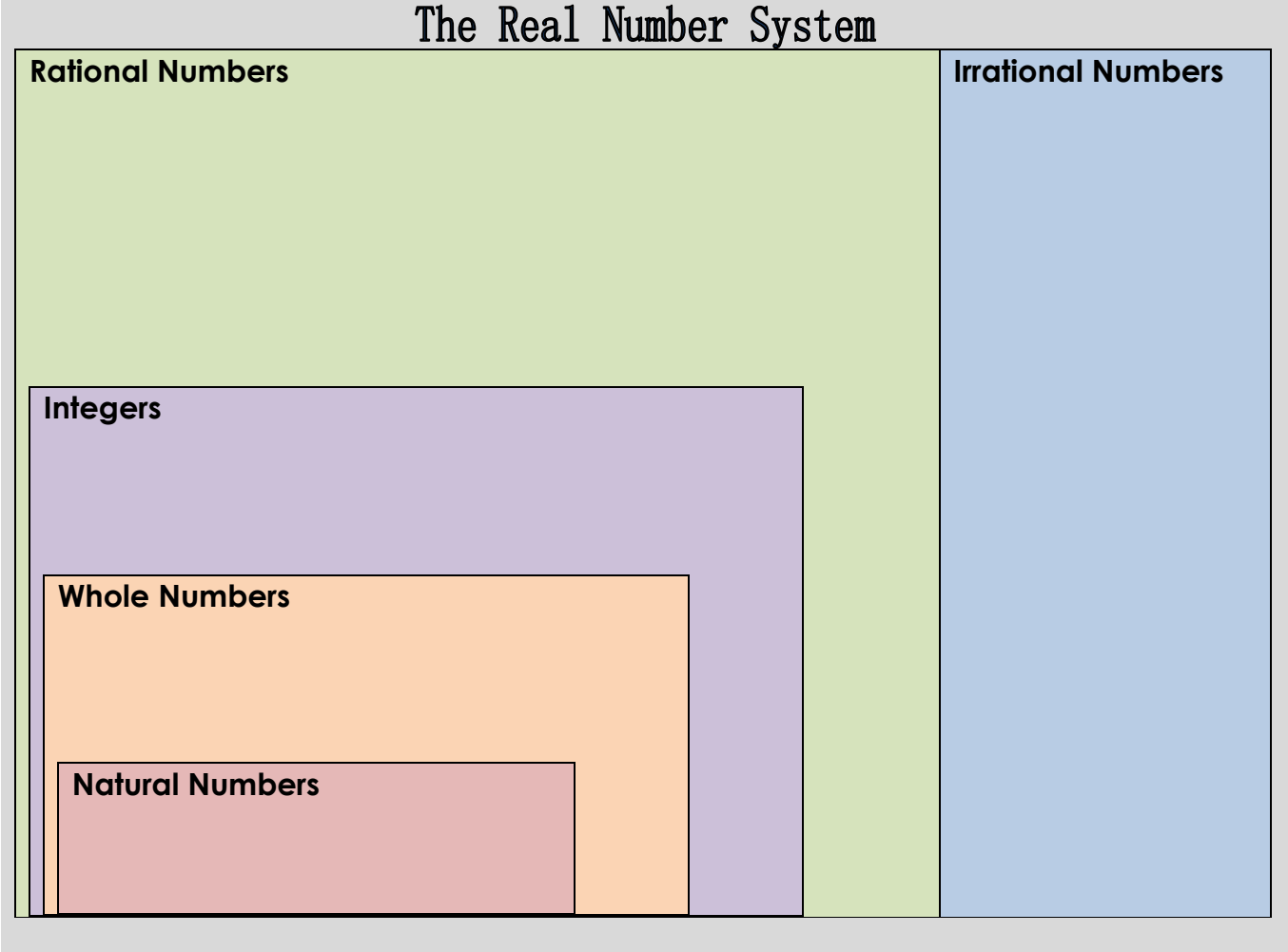
Whole Numbers are natural numbers and zero.

Integers are positive numbers, negative numbers, and zero.

Rational Numbers are numbers that can be expressed as the quotient of two integers in the form a/b where b ≠ 0.

Irrational Numbers are real numbers that *cannot* be written as the quotient of two integers in the form a/b where b ≠ 0.

Real Numbers are real numbers consisting of the rational numbers and the irrational numbers.



Example 1: Given the set $\left\{-100, -\frac{2}{5}, 0, \pi, 6, 913\right\}$, list the numbers in this set that belong to the set of:

a) Natural Numbers

b) Whole Numbers

c) Integers

d) Rational Numbers

e) Irrational Numbers

f) Real Numbers

Example 2: For each given number, circle all number types that apply to it.

a) 4.62 Natural Whole Integer Rational Irrational Real

b) $\frac{7}{8}$ Natural Whole Integer Rational Irrational Real

c) 90 Natural Whole Integer Rational Irrational Real

d) $\sqrt{15}$ Natural Whole Integer Rational Irrational Real

e) -44 Natural Whole Integer Rational Irrational Real