Algebra 2
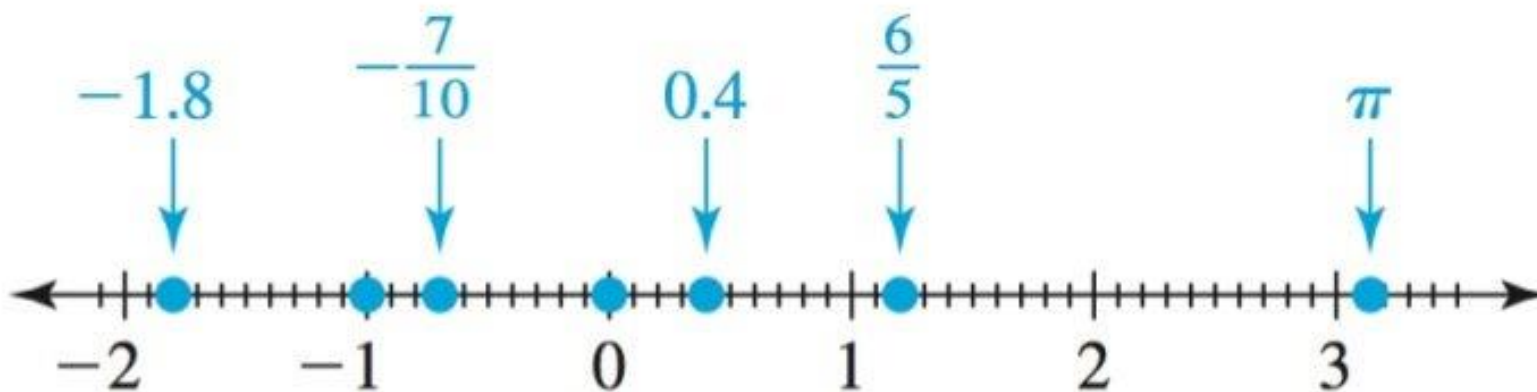# Introduction
To
Real Numbers

Real Numbers

The **real numbers** are all of the numbers represented on the number line.

Real Numbers Definitions

- **Real Numbers** – consists of all ***rational*** and ***irrational*** numbers.
  - It includes any number that can be written as a fraction, mixed numbers, terminating and repeating decimals, whole numbers, integers.

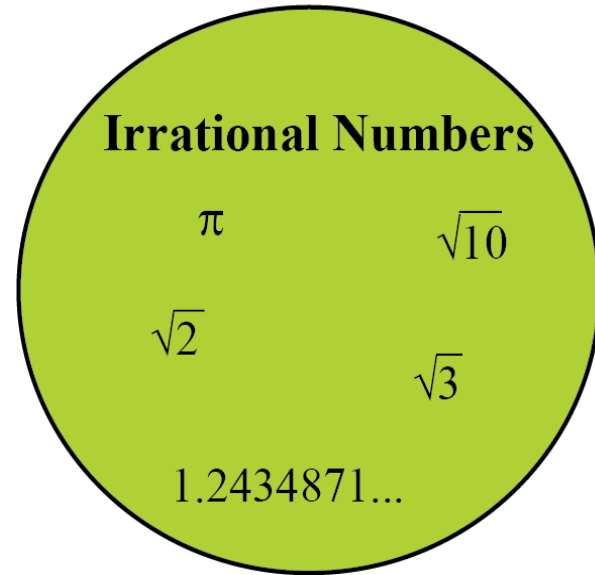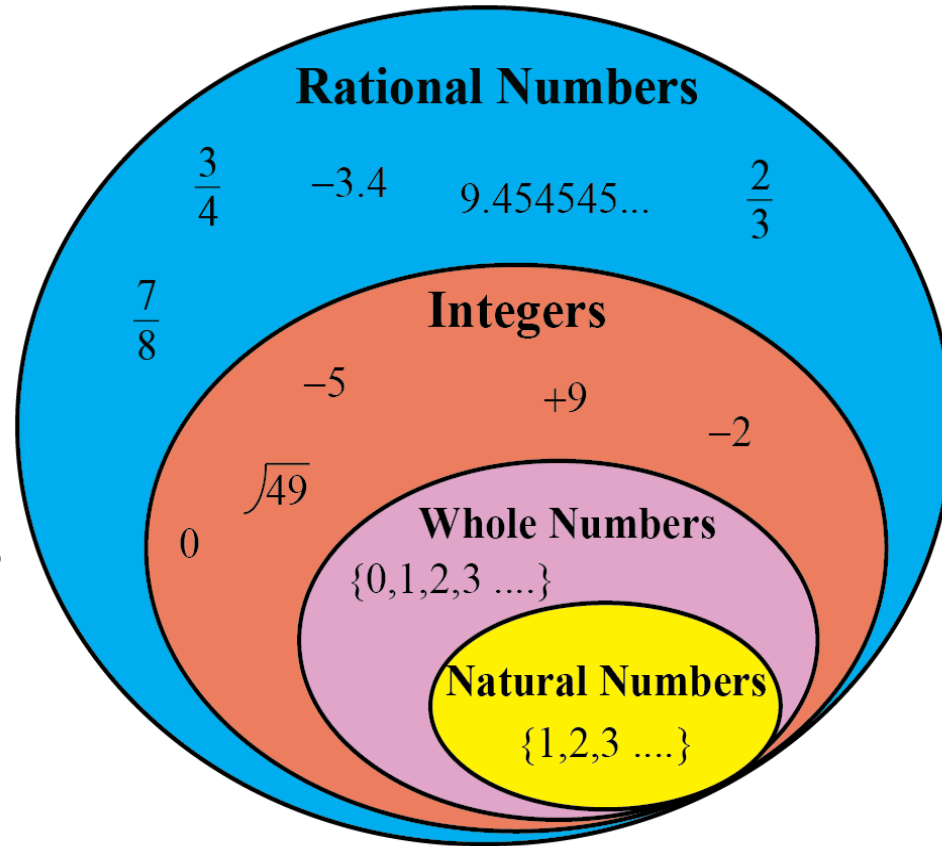$$\frac{1}{2} \qquad 5\frac{3}{4} \qquad 1.5 \qquad 4 \qquad 0 \qquad -6$$

$$2.33\overline{3}$$

$$\pi \qquad \sqrt{2}$$

We can classify numbers as:

1. **Natural numbers**
2. **Whole numbers**
3. **Integers**
4. **Rational numbers**
5. **Irrational numbers**
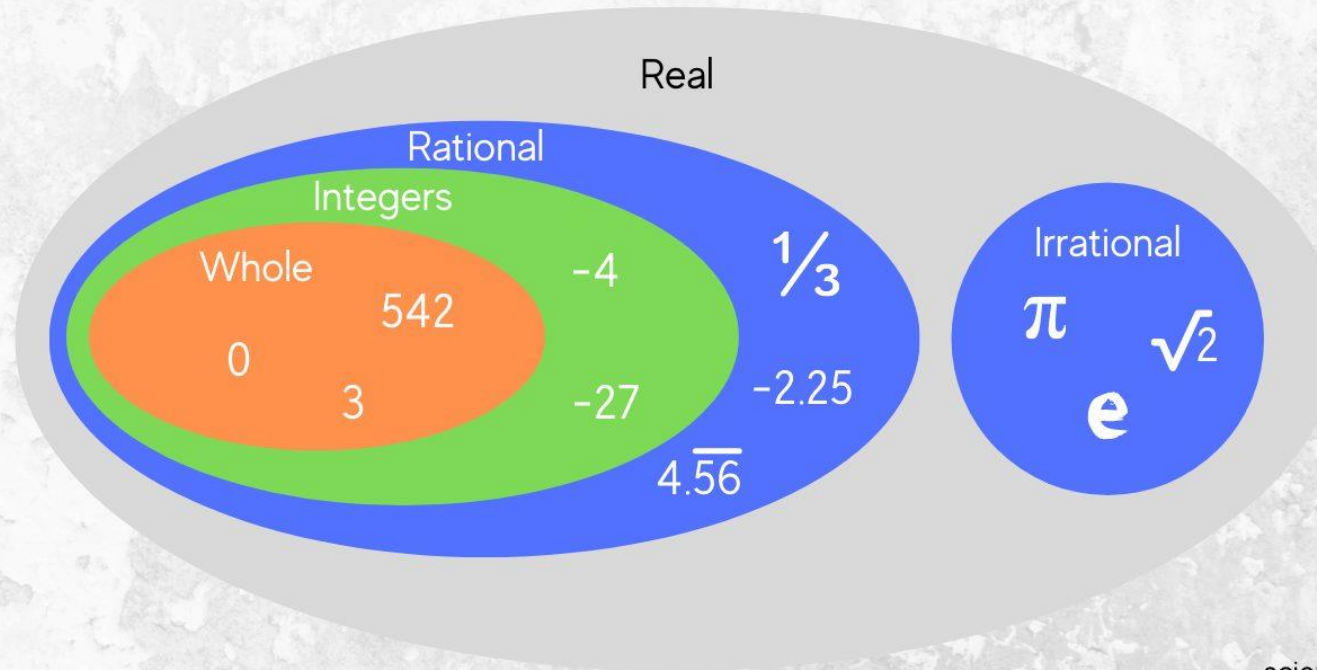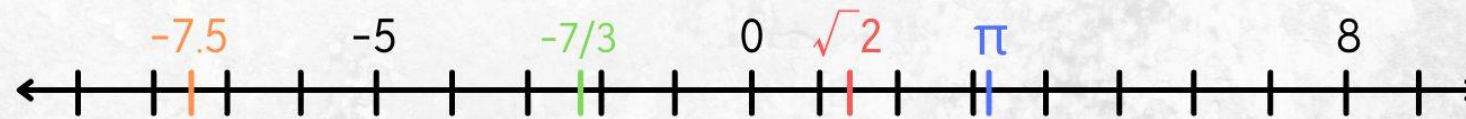
Activity

1. Circle the irrational number

2. Make a number line and plot only rational numbers given the following numbers

$$-\frac{3}{2}, \ 1, \ \sqrt{9}, -\sqrt{4}, \ \sqrt{35}, \ \sqrt[3]{64}, -\sqrt{3}, -\sqrt[3]{125}$$

REVIEW

EXIT TICKET

Q.1. What are real numbers in math?

Q.2. What do real numbers include?

Q.3. Is 00 considered a real number?

Q.4. How do you identify a real number?

Q.5. What are real numbers on a graph?

Q.1. What are real numbers in math?
Ans: Real numbers include positive and negative integers, rational numbers, and irrational numbers.

Q.2. What do real numbers include?
Ans: The real numbers include fractions, rational numbers, integers or whole numbers, and irrational numbers.

Q.3. Is 00 considered a real number?
Ans: 00 is considered a real number.

Q.4. How do you identify a real number?
Ans: Any number which can be plotted on the number line is known as a real number.

Q.5. What are real numbers on a graph?
Ans: For every real number, we fix a position on the number line. The position of positive numbers is towards the right of 00, and negative numbers are towards the left of 00.