Name:

Date:

Period:

## Lesson 7.1
## Introduction into Rational Numbers

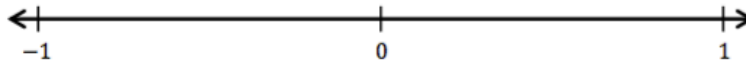1. Write the opposite of each number.

   a. $\dfrac{10}{7}$

   b. $-\dfrac{5}{3}$

   c. $3.82$

   d. $-6\dfrac{1}{2}$

2. Choose a non-integer between 0 and 1. Label it point $A$ and its opposite point $B$ on the number line. Write values below the points.



   a. To draw a scale that would include both points, what could be the length of each segment?

   b. In words, create a real-world situation that could represent the number line diagram.

3. Choose a value for point $P$ that is between $-6$ and $-7$.

   a. What is the opposite of $P$?

   b. Use the value from part (a), and describe its location on the number line in relation to zero.

   c. Find the opposite of the opposite of point $P$. Show your work and explain your reasoning.

4.

A carp is swimming approximately $8\dfrac{1}{4}$ feet beneath the water's surface, and a sunfish is swimming approximately $3\dfrac{1}{2}$ feet beneath the water's surface. Which fish is swimming further beneath the water's surface?

5.

| Rational Numbers | Ordered from Least to Greatest | Opposites | Opposites Ordered from Least to Greatest |
|---|---|---|---|
| $-7.1, -7.25$ | $-7.25, -7.1$ | $7.25, 7.1$ | $7.1, 7.25$ |
| $\frac{1}{4}, -\frac{1}{2}$ | | | |
| $2, -10$ | | | |
| $0, 3\frac{1}{2}$ | | | |
| $-5, -5.6$ | | | |
| $24\frac{1}{2}, 24$ | | | |
| $-99.9, -100$ | | | |
| $-0.05, -0.5$ | | | |
| $-0.7, 0$ | | | |
| $100.02, 100.04$ | | | |