

## Lesson Summary

When we order rational numbers, their opposites are in the opposite order. For example, if 7 is greater than 5,  $-7$  is less than  $-5$ .

## Problem Set

- 1.
- a. In the table below, list each set of rational numbers from greatest to least. Then, in the appropriate column, state which number was farthest right and which number was farthest left on the number line.

Column 1	Column 2	Column 3	Column 4
Rational Numbers	Ordered from Greatest to Least	Farthest Right on the Number Line	Farthest Left on the Number Line
$-1.75, -3.25$			
$-9.7, -9$			
$\frac{4}{5}, 0$			
$-70, -70\frac{4}{5}$			
$-15, -5$			
$\frac{1}{2}, -2$			
$-99, -100, -99.3$			
$0.05, 0.5$			
$0, -\frac{3}{4}, -\frac{1}{4}$			
$-0.02, -0.04$			

- b. For each row, describe the relationship between the number in Column 3 and its order in Column 2. Why is this?
- c. For each row, describe the relationship between the number in Column 4 and its order in Column 2. Why is this?

2. If two rational numbers,  $a$  and  $b$ , are ordered such that  $a$  is less than  $b$ , then what must be true about the order for their opposites:  $-a$  and  $-b$ ?
3. Read each statement, and then write a statement relating the *opposites* of each of the given numbers:
- 7 is greater than 6.
  - 39.2 is greater than 30.
  - $-\frac{1}{5}$  is less than  $\frac{1}{3}$ .
4. Order the following from least to greatest:  $-8$ ,  $-19$ ,  $0$ ,  $\frac{1}{2}$ ,  $\frac{1}{4}$ .
5. Order the following from greatest to least:  $-12$ ,  $12$ ,  $-19$ ,  $1\frac{1}{2}$ ,  $5$ .