

### Objective 8

Order positive and negative rational numbers.

**Example 1:**

**PROBLEM**

Write the numbers in order from **greatest to least**.

$$-1\frac{9}{10}, -2\frac{1}{5}, -2.1, 1.8$$

**STEP 1**

Write all the numbers in the same form. Change the two mixed numbers to decimals.

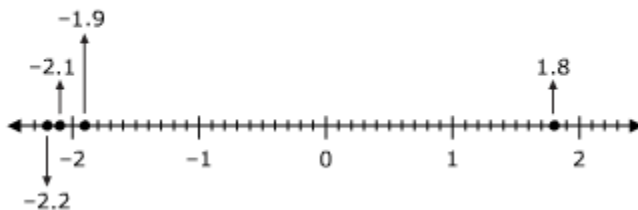
$$-1\frac{9}{10} = -1.9$$

$$\begin{aligned} -2\frac{1}{5} &= -2\frac{2}{10} \\ &= -2.2 \end{aligned}$$

In decimal form, the numbers are -1.9, -2.2, -2.1, and 1.8.

**STEP 2**

Plot the decimal numbers on a number line.



**STEP 3**

List the numbers as they appear on the number line from right to left. Use the mixed numbers from the original list instead of their decimal equivalents.

$$1.8, -1\frac{9}{10}, -2.1, -2\frac{1}{5}$$

**Guided Practice:**

Which list of numbers is in order from **least to greatest**?

[A]  $-\frac{1}{2}, -\frac{1}{4}, \frac{1}{3}, 2\frac{3}{10}$

[B]  $-\frac{1}{2}, 2\frac{3}{10}, -\frac{1}{4}, \frac{1}{3}$

[C]  $-\frac{1}{4}, \frac{1}{3}, 2\frac{3}{10}, -\frac{1}{2}$

[D]  $2\frac{3}{10}, \frac{1}{3}, -\frac{1}{4}, -\frac{1}{2}$

Write the numbers in order from **least to greatest**.

-1.1, 1.2, 3.1, -2.2

**Independent Practice:**

Which list of numbers is in order from **greatest to least**?

[A]  $-1\frac{3}{7}, -\frac{1}{3}, 18, 12$

[B]  $18, 12, -\frac{1}{3}, -1\frac{3}{7}$

[C]  $18, -\frac{1}{3}, 12, -1\frac{3}{7}$

[D]  $-1\frac{3}{7}, -\frac{1}{3}, 12, 18$

Write the numbers in order from **greatest to least**.

$$2.7, -\frac{3}{10}, 2\frac{1}{2}, -1.9$$

**Additional Help:**

<https://www.youtube.com/watch?v=4FjBSXsfUA>

<http://www.studyzone.org/mttestprep/math8/e/intline6l.cfm>