

Lesson 7-2 • Group 2

Reinforce Understanding

7.2 Small Group • Group 2

I can place rational numbers, including fractions and decimals, on a number line, explain why the method works, and use it on a problem I have not seen before.

Worked model

A tree trunk rises 1.8 meters above the ground. Its taproot reaches the opposite value. Plot both on a vertical number line.

1. The ground is 0. Above the ground is positive; below the ground is negative.
2. The height is 1.8, so the root value is its opposite: -1.8
3. Between each pair of integers, mark ten equal parts so you can count tenths.
4. Plot 1.8 eight tenths above 1, and plot -1.8 eight tenths below -1 .

Answer: The trunk is 1.8 m and the root is -1.8 m; both sit 1.8 units from 0.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Plot these rational numbers: -3.5 , $-1/4$, 2.75 , -2 , $1\frac{1}{2}$

Mark and label each value on the number line.

Show your thinking

2. Convert between fraction and decimal form. Then plot on a mental number line to compare.

Complete the table. Show how you found each value.

Fraction	Decimal	Between Which Two Integers?
$3/4$		
$-7/2$		
	0.6	
	-1.25	
$2\frac{1}{5}$		

Show your work

3. On a number line, point P is located at -2.5 . Which statement describes its location best?

Circle the letter of the best answer. Show how you know.

- A. At -3
- B. At -2
- C. Halfway between -2 and -3
- D. Halfway between 2 and 3

Show your work
