

Name _____

Compare Fractions and Decimals

Essential Question How can you compare decimals, fractions, and mixed numbers on a number line?

UNLOCK the Problem REAL WORLD

The Tech Club compared the weights of three cell phones. Estéban's phone weighed 4.7 ounces. Jill's phone weighed $4\frac{3}{5}$ ounces. Mona's phone weighed 4.35 ounces. Who has the phone with the lightest weight?

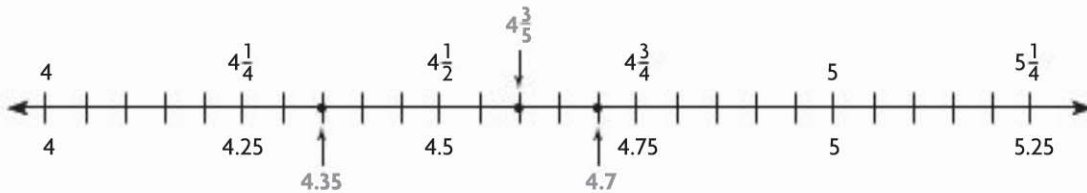
You can use a number line to compare fractions and decimals.

Remember: Greater values on a number line lie farther to the right.

Key: Compare the values on a number line.

STEP 1 Locate some benchmarks.

- Benchmark decimals: 4, 4.25, 4.5, 4.75, 5...
- Benchmark mixed numbers: $4, 4\frac{1}{4}, 4\frac{1}{2}, 4\frac{3}{4}, 5, \dots$



STEP 2 Mark the weight of each cell phone on the number line.

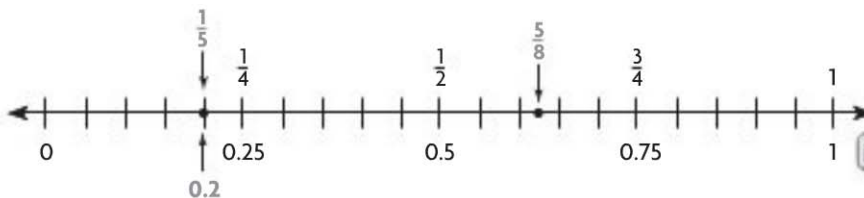
- Find the location of 4.7, $4\frac{3}{5}$, and 4.35.

Since $4.35 < 4\frac{3}{5} < 4.7$, Mona's phone is lightest.

- How can you identify the number with the least value?

Try This! Compare $\frac{1}{5}$, $\frac{5}{8}$, and 0.2. Which number has the greatest value?

- Mark each value on a number line.



The greatest number is _____. Explain how you decided.

Math Talk

Explain how you can tell that $\frac{1}{5}$ and 0.2 are equal.

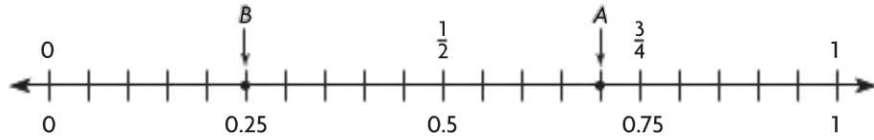
Share and Show



For 1–2, identify the points on the number line.
Then write the greater number.

1. point A as a decimal

2. point B as a fraction



_____ is greater.

Locate each number on a number line.
Then complete the sentence.

3. 0.55 , $\frac{2}{5}$, 0.46

The number with the greatest value is _____.

On Your Own

Locate each number on a number line. Then complete the sentence.

4. 0.4 , $\frac{3}{4}$, 0.15

The number with the greatest value is _____.

5. $2\frac{2}{3}$, 2.45 , $2\frac{2}{5}$

The number with the least value is _____.

6. 3.95 , $3\frac{5}{6}$, $3\frac{4}{5}$

The number with the greatest value is _____.

Problem Solving



7. Hannah made 0.7 of her free throws in a basketball game. Abra made $\frac{9}{10}$ of her free throws. Dena made $\frac{3}{4}$ of her free throws. Who was the best shooter? **Explain.**

