

Name _____

Order Fractions and Decimals

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

UNLOCK the Problem REAL WORLD

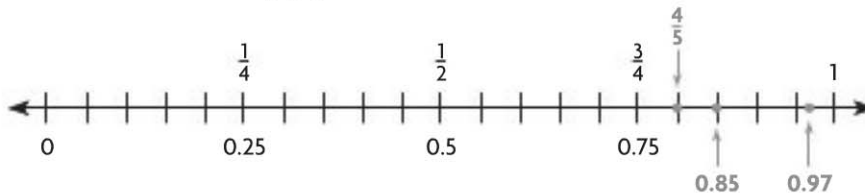
In tennis, Jocelyn's serve takes 0.97 of a second to reach her opponent. Dave's serve takes $\frac{4}{5}$ of a second. Monica's serve takes 0.85 of a second. Order the three serves from shortest to longest time.

- You want to order the times from shortest to longest. Should you read the numbers on the number line left to right or right to left?

Order the fractions and decimals on the number line.

STEP 1 Locate the benchmarks on the number line.

- Benchmark decimals: 0, 0.25, 0.5, 0.75, 1.
- Benchmark fractions: 0, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1.



STEP 2 Locate 0.97, $\frac{4}{5}$, and 0.85 on the number line.

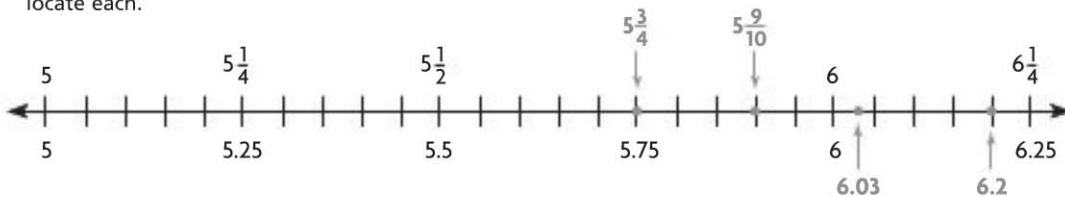
STEP 3 Order the fractions and decimals.

Remember: The point farthest to the left is the least value.

So, the times in order from shortest to longest are: $\frac{4}{5}$, **0.85**, **0.97**.

Try This! Order 6.03, $5\frac{9}{10}$, $5\frac{3}{4}$, and 6.2 from greatest to least.

- Locate each fraction and decimal on the number line. Use benchmarks to help you locate each.



From the greatest to least: _____, _____, _____, _____

Math Talk

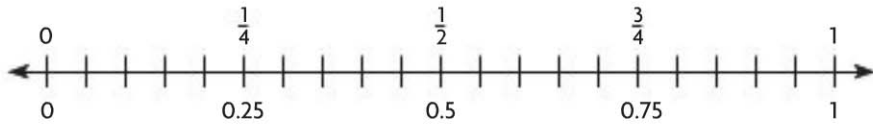
How does the number line help you order numbers from greatest to least?

Share and Show



Locate each number on the number line.

Then write the numbers in order from least to greatest.



1. $\frac{3}{5}$, 0.54, 0.35

For 2–3, locate each set of numbers on a number line.

Then write the numbers in order from greatest to least.

2. 1.16, $1\frac{1}{4}$, 1.37, $1\frac{1}{10}$

3. $\frac{5}{8}$, 0.5, $\frac{2}{5}$, 0.78

On Your Own

For 4–5, locate each number on a number line.

Then write the numbers in order from least to greatest.

4. 0.6, $\frac{1}{2}$, $\frac{2}{3}$, 0.39

5. $7\frac{1}{4}$, 7.4, $7\frac{3}{4}$, 7.77

For 6–7, locate each number on a number line.

Then write the numbers in order from greatest to least.

6. $\frac{3}{10}$, 0.222, $\frac{3}{5}$, 0.53

7. 2.96, $3\frac{1}{5}$, 3.48, $3\frac{1}{4}$

Problem Solving



8. Judges in a skateboarding competition gave scores of 8.2, $8\frac{1}{3}$, $8\frac{4}{5}$, 8.44, and $8\frac{1}{5}$. Which two scores were closest to one another? **Explain.**

