

Number Line Hops

Find fractions from 0 to 1.

GRADE 3 • NY-3.NF.2

NY-3.NF.2 "Understand a fraction as a number on the number line; represent fractions on a number line."

NAME _____

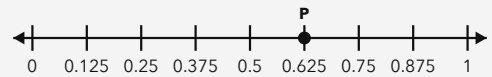
DATE _____

FRACTIONS HAVE PLACES

A fraction on a number line shows a distance from 0. Count the equal spaces from 0 to 1 for the denominator, then count the spaces from 0 to the point for the numerator.

WORKED EXAMPLE

What fraction names point P?



1. Count 8 equal spaces from 0 to 1.

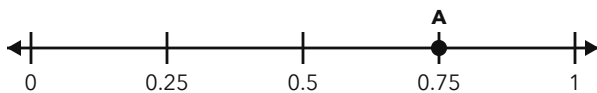
2. Count 5 spaces from 0 to P.

3. Write $\frac{5}{8}$.

Answer: $\frac{5}{8}$

PRACTICE 6 problems

1 What fraction names point A?



ANSWER _____

2 A number line from 0 to 1 has 6 equal spaces. Point B is at the third tick to the right of 0. Write the fraction for B.

ANSWER _____

3 Which fraction is farther right on a number line, $\frac{1}{4}$ or $\frac{1}{2}$?

ANSWER _____

4 A number line from 0 to 1 has 6 equal spaces. Write the fraction at the fourth tick to the right of 0.

ANSWER _____

5 A number line from 0 to 1 has 4 equal spaces. Write the fraction at the second tick to the right of 0.

ANSWER _____

6 Write $<$, $>$, or $=$. $\frac{3}{6}$ ____ $\frac{1}{2}$

ANSWER _____

APPLY IT Show your work

- 1** In a rocket game, 0 is launch and 1 is the space station. The marker S shows how far the rocket has traveled. What fraction of the trip has the rocket traveled?



ANSWER _____

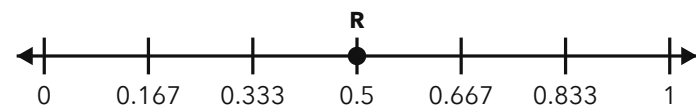
- 2** A game energy meter is shown on the number line. What fraction names point E? Is point E to the left or to the right of $\frac{1}{2}$?



ANSWER _____

CHALLENGE One step up

Kai says point R is $\frac{3}{6}$. Lila says point R is $\frac{1}{2}$. Are both students correct? Explain your reasoning.



WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	What fraction names point A?	3/4
2	A number line from 0 to 1 has 6 equal spaces. Point B is at the third tick to the right of 0. Write the fraction for B.	3/6
3	Which fraction is farther right on a number line, $\frac{1}{4}$ or $\frac{1}{2}$?	$\frac{1}{2}$
4	A number line from 0 to 1 has 6 equal spaces. Write the fraction at the fourth tick to the right of 0.	$\frac{4}{6}$
5	A number line from 0 to 1 has 4 equal spaces. Write the fraction at the second tick to the right of 0.	$\frac{2}{4}$
6	Write $<$, $>$, or $=$. $\frac{3}{6}$ ____ $\frac{1}{2}$	=

PART 2 • APPLY IT

1. **$\frac{3}{4}$** The trip is split into 4 equal spaces. Marker S is 3 spaces from 0, so it is at $\frac{3}{4}$.
2. **$\frac{4}{6}$, to the right of $\frac{1}{2}$** Point E is 4 equal spaces from 0 on a number line with 6 equal spaces. Since $\frac{1}{2}$ is at $\frac{3}{6}$, $\frac{4}{6}$ is to its right.

CHALLENGE

Yes. Point R is $\frac{3}{6}$, and $\frac{3}{6}$ is the same point as $\frac{1}{2}$.

Accept equivalent fraction names that identify the same point, such as $\frac{1}{2}$, $\frac{2}{4}$, and $\frac{3}{6}$. For the challenge, accept explanations that state the point is halfway from 0 to 1 or that 3 of 6 equal spaces is one-half.