LESSON MAKER PRO

Between the Benchmarks

Find fractions on number lines

GRADE 4 · 4.N.3.2

4.N.3.2 "Use benchmark fractions (0, 1/4, 1/3, 1/2, 2/3, 3/4, 1) to locate additional fractions with denominators up to twelfths on a number line."

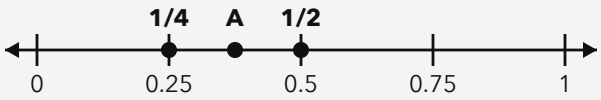
NAME _____ DATE _____

USE NEARBY FRACTIONS

The spaces on a number line are equal. Find the benchmarks on either side of a point, then use the spaces between them to name its fraction. On a line that counts twelfths, each tick is 1/12 of a whole.

WORKED EXAMPLE

What fraction is at A?



1. A is halfway between 1/4 and 1/2.
2. In eighths, 1/4 = 2/8 and 1/2 = 4/8.
3. Halfway between 2/8 and 4/8 is 3/8.

Answer: 3/8

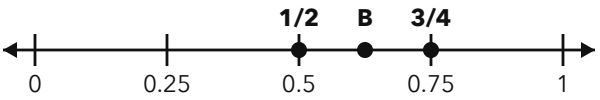
PRACTICE 6 problems

1 What fraction is at A?



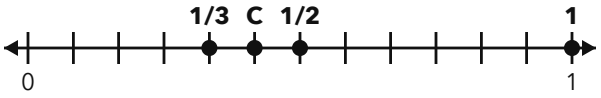
ANSWER _____

2 What fraction is at B?



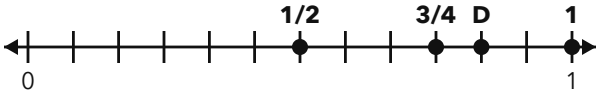
ANSWER _____

3 Each tick is 1/12 of a whole. What fraction is at C?



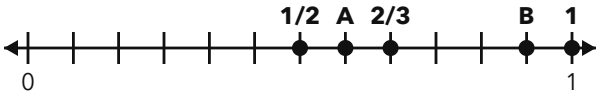
ANSWER _____

4 Each tick is 1/12 of a whole. What fraction is at D? Write it in simplest form.



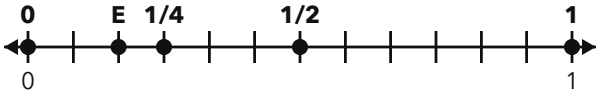
ANSWER _____

5 Each tick is 1/12 of a whole. Which letter shows 7/12?



ANSWER _____

6 Each tick is 1/12 of a whole. Write E as a fraction in simplest form. Which labeled benchmark is closest to E?

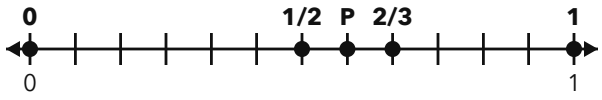


ANSWER _____

_____

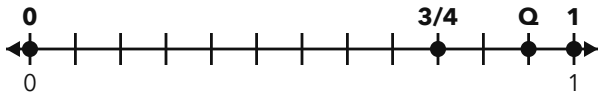
APPLY IT Show your work

1 A game download bar shows how much of a game has loaded. Each tick is 1/12 of the download. What fraction has loaded at P? Which two labeled benchmarks is P between?



ANSWER _____

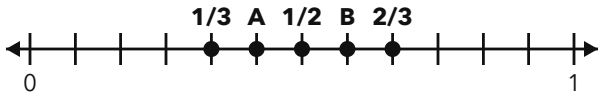
2 At a skate park, a rider travels part of a one-mile route. Each tick is 1/12 mile. What fraction of a mile has the rider traveled at Q? Is Q before or after the 3/4-mile mark?



ANSWER _____

CHALLENGE One step up

Each tick is 1/12 of a whole. A and B are the same distance from one labeled benchmark. Which benchmark is it? Explain using twelfths.



WORK SPACE AND ANSWER

ANSWER KEY

Between the Benchmarks

GRADE 4 · 4.N.3.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What fraction is at A?	**1/8**
2	What fraction is at B?	**5/8**
3	Each tick is 1/12 of a whole. What fraction is at C?	**5/12**
4	Each tick is 1/12 of a whole. What fraction is at D? Write it in simplest form.	**5/6**
5	Each tick is 1/12 of a whole. Which letter shows 7/12?	**A**
6	Each tick is 1/12 of a whole. Write E as a fraction in simplest form. Which labeled benchmark is closest to E?	**1/6; closest benchmark: 1/4**

PART 2 · APPLY IT

1. **7/12; between 1/2 and 2/3** P is seven twelfth-sized steps from 0. It falls between the labeled benchmarks 1/2 and 2/3.
2. **11/12 mile; after 3/4 mile** Q is eleven twelfth-sized steps from 0. It is to the right of the 3/4-mile mark.

CHALLENGE

1/2. A is 5/12 and B is 7/12, so each is 1/12 from 1/2, or 6/12.

For problem 4, accept 10/12 only if discussing the point's location, not as the requested simplest form. For problem 6, E is one tick from 1/4.