

The **Fractions: Equality** simulation allows students to explore equivalent fractions with different denominators, then test their understanding on the Game screen.

## Equality Lab Screen

The Equality Lab screen, originally found in the legacy Fractions: Intro sim, engages students with the same representations found in Fractions: Intro

**VIEW** different fraction representations

**MANIPULATE** the fraction

**DRAG** fraction pieces

**COMPARE** to the same shape or number line

**PARTITION** the denominator to create equivalent fractions

## Game Screen

The Game screen contains eight levels of matching fractions using the improper fraction representations for fractions greater than 1. This game can also be found in the [Fraction Matcher](#) simulation.

**SEE** correct matches

**RETURN** to the level selection screen

**REFRESH** to get a new set of fractions

**GET FEEDBACK** about the values of your fractions in a number line representation

**DRAG** different representations of the fractions up to the scales and check if they are equivalent

## Suggestions for Use

- Allow students to explore the Equality Lab screen first, then facilitate a discussion about what patterns students notice about equivalent fractions. Use this discussion to develop strategies for constructing and identifying equivalent fractions.
- Students can work at any level on any screen, but it can be helpful to differentiate instruction by assigning certain levels.

## Sample Challenge Prompts

- If two fractions are equivalent, what do you know about the area of those two fractions?
- If two fractions are not equivalent, what do you know about the area of those two fractions?
- What strategies help you match two fractions? How can you use these strategies to determine if  $\frac{5}{8}$  and  $\frac{10}{13}$  are equivalent?

See all published activities for Fractions: Equality [here](#).

For more tips on using PhET sims with your students, see [Tips for Using PhET](#).