

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

Fractions: Equality

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

Fractions: Equality

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](#).