

The **Fractions: Intro** simulation allows students to engage with and compare multiple representations of fractions and test their understanding on the Game screen.

## Intro Screen

In the Intro screen, students can build their own fraction and see it represented as a pie, rectangle, cylinder, cake, or number line, and compare it to the numerator and denominator.

**VIEW** different fraction representations

**MANIPULATE** the fraction

**DRAG** fraction pieces

**ADJUST** the number of containers

**INCREASE/DECREASE** the numerator and denominator of an improper fraction

Fractions: Intro

PhET

## Game Screen

This Game screen can also be found in the [Build a Fraction](#) simulation.

**RETURN** to the level selection screen

**BUILD** fractions that match the targets

**RESET** to get a new set of challenges

**ADD/REMOVE** containers

**PARTITION** container

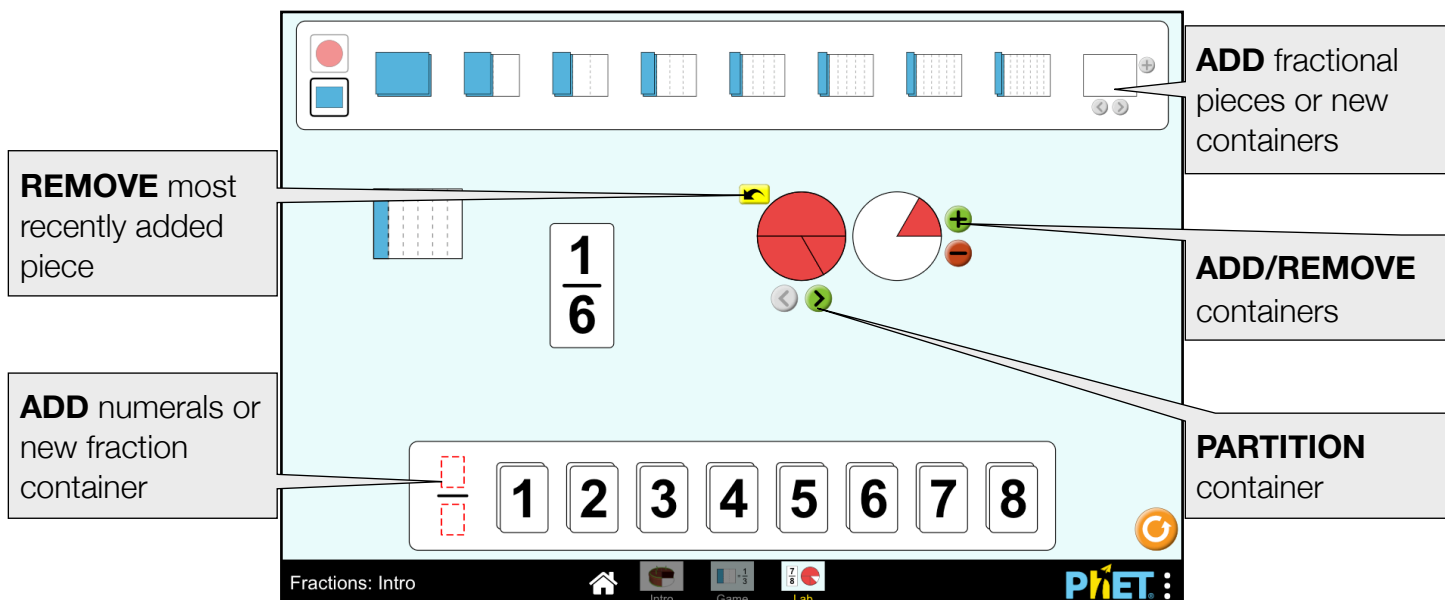
Level 8

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## Lab Screen

The Lab screen can also be found in the [Build a Fraction](#) simulation.



## Suggestions for Use

- Allow students to explore the Intro screen, then facilitate a discussion about what the top and bottom numbers of the fraction mean. Use this discussion to introduce the terms numerator and denominator, and use student suggestions for defining those terms.
- Assign specific Game levels to address your learning goals.

## Sample Challenge Prompts

- Play on the Intro screen. What does the top number of the fraction mean? What does the bottom number mean?
- If you are building a fraction, where can you place the fraction pieces? Does it matter which container you put it in?
- Using the Lab screen, create multiple fractions that equal one. Challenge yourself to use differently sized pieces.

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

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