



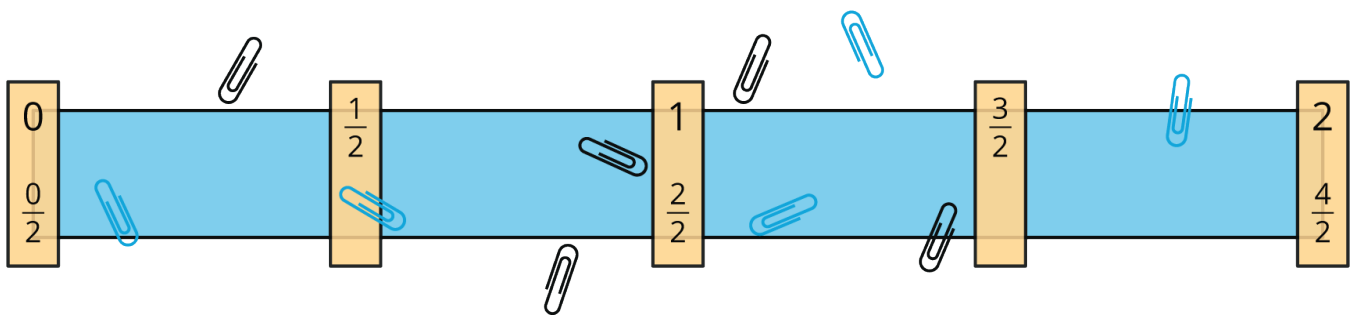
# Paper Clip Games

Let's create a game about locating and comparing fractions on the number line.

## Warm-up

### Notice and Wonder: Lots of Paper Clips

What do you notice? What do you wonder?



## Activity 1

### Paper Clip Tossing Game

Let's prepare a gameboard and figure out how to toss paper clips and record the results.

1. Make your gameboard:
  - Fold your paper strip in half, then in half again.
  - Tape the paper strip to your workspace and label the benchmark fractions 0,  $\frac{1}{2}$ ,  $1, \frac{3}{2}$ , and 2.
2. Play the game:
  - Decide on which benchmark fraction you'll try to land. This is the target fraction.
  - Take turns tossing the paper clips.
  - Label the fraction where each paper clip lands.
  - If you land on the target fraction, name an equivalent fraction to get a point.
  - The player with the most points at the end of the game wins.

Be prepared to share your strategies for:

- tossing the paper clips
- finding out the fraction for each clip's location on the gameboard
- naming equivalent fractions for the target fractions

## Activity 2

### A New Game with New Rules

Invent your own game.

1. Make a list with the rules of your game. Your game should include at least one of the following:
  - comparing fractions
  - finding equivalent fractions
  - using common denominators
  - using benchmark fractions like  $\frac{1}{2}$  or  $\frac{2}{2}$
2. Play your game, paying close attention to the rules.
3. Revise and clarify your game rules, if necessary.

# Activity 3

## Field Test

Let's try out these games!

- 1. Before playing the game, exchange your game rules with another team. Carefully read the rules. Take turns asking clarifying questions, if you have any.
- 2. Play each other's games.
- 3. After playing the game, give feedback to each other about the rules.
  - a. What is one thing you liked about the other team's game?

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- b. What is one thing you might change?

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