

Magnetic Equivalent Fractions Activity Suggestions

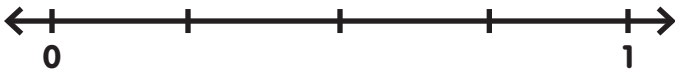
Magnetic Equivalent Fractions can be used as labels on a number line or diagram, for games, and for showing relationships between fractions. Here are a few simple activities to help you get started:

Number Line Labels

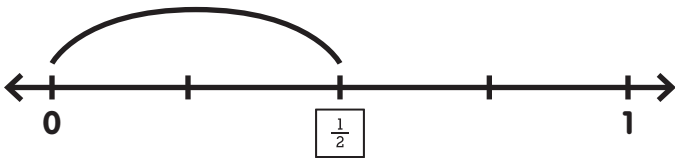
Common Core State Standard

3.NF.A.3a: Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

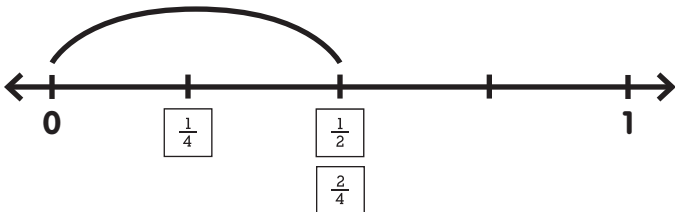
You will need a dry-erase magnetic board and marker. Draw a line, and make 3 tick marks in even intervals between 0 and 1, dividing the line into four equal parts.



Ask, "About how many tick marks is halfway between 0 and 1 inch?" Plot a line to this point.



Mark this point with the $\frac{1}{2}$ label. Now ask, "How many tick marks between 0 and $\frac{1}{2}$ -inch?" Mark the point with the $\frac{2}{4}$ label. You may also want to write the fourths segment ($\frac{1}{4}$) underneath.

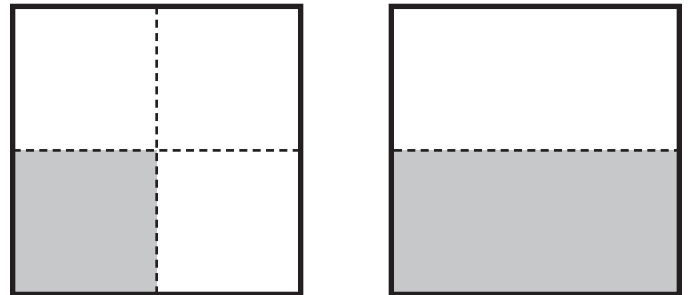


Fraction Relationships

Common Core State Standard

3.NF.A.3d: Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

You will need a dry-erase magnetic board and marker. Ask: "Is $\frac{1}{4}$ bigger than $\frac{1}{2}$?" Then draw two equal-size rectangles and divide them as shown:



Ask: "How many parts are in each rectangle? How many of these parts are shaded? Add the labels:

$$\frac{1}{4}$$

$$\frac{1}{2}$$

Now ask: "What symbol can we use to show that $\frac{1}{4}$ is less than $\frac{1}{2}$?" Add the symbol:

$$\frac{1}{4}$$

$$<$$

$$\frac{1}{2}$$

What Fraction? Game

Common Core State Standards

3.NF.A.1: Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$; **3.NF.A.3b:** Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{1}{3} = \frac{2}{6}$.

Select all the magnets with visible models (polygon models). Have a student choose one of the visible models and put it up on a magnetic surface.

Ask, "What fraction of the area of the shape is shaded? Name the fraction in as many ways as you can. Explain your answers." For each answer, have the student select the correct magnet and add it to the magnet board. For example: pentagon shape, $\frac{1}{5}$, 20%, $\frac{2}{10}$, 0.20.