

Equivalent Fractions

$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$$



Today's Goal



Make equivalent fractions.



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



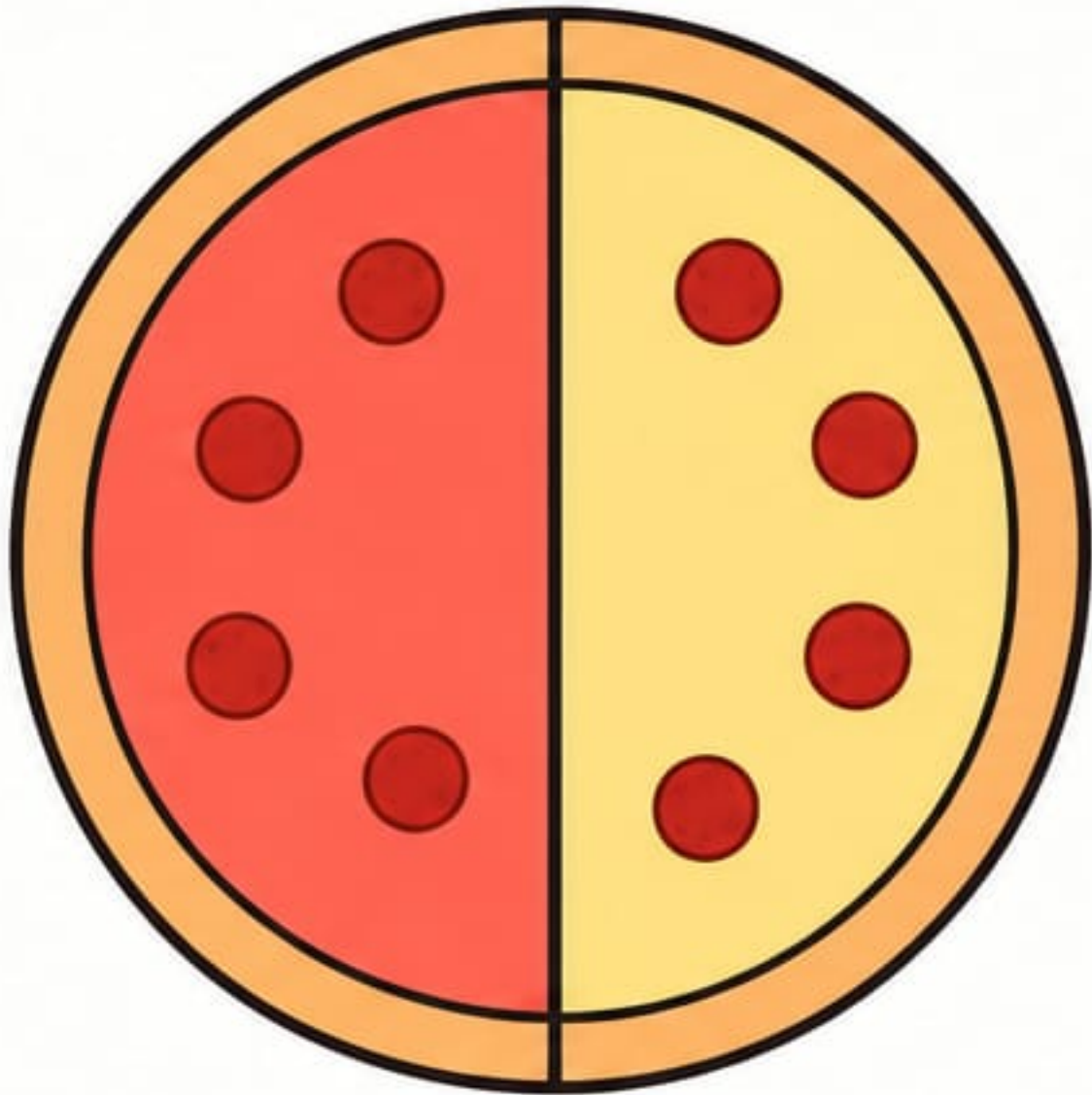
$$\frac{2}{4}$$

≡ Equivalent Fractions ≡

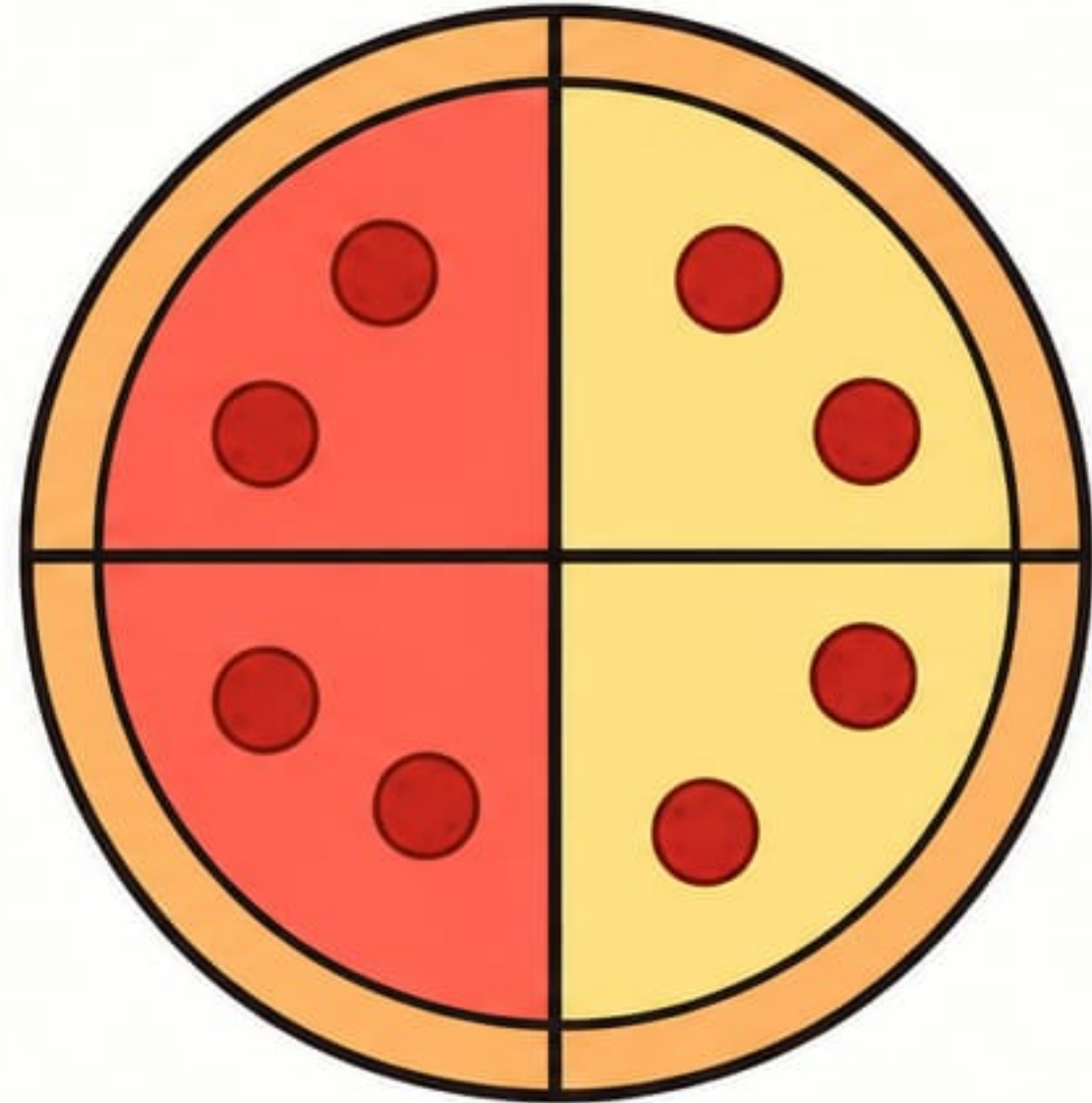


Would you rather have $\frac{1}{2}$ or $\frac{2}{4}$?

$\frac{1}{2}$



or



$\frac{2}{4}$

What Equivalent Means



Equivalent fractions show the same amount.

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

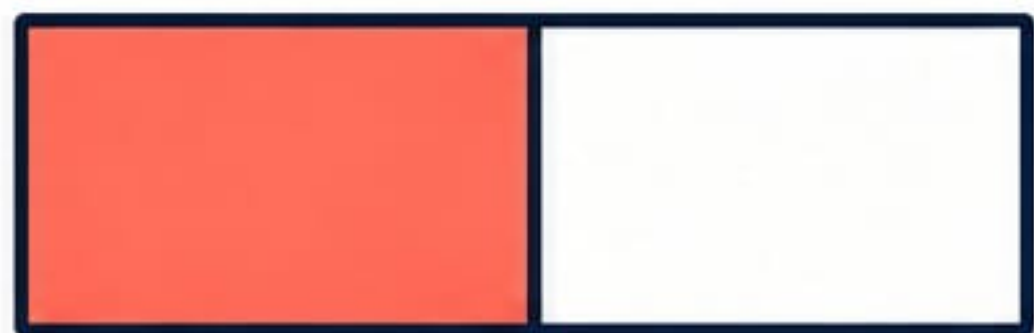


=

$$\frac{2}{4}$$



One Half, Three Ways



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



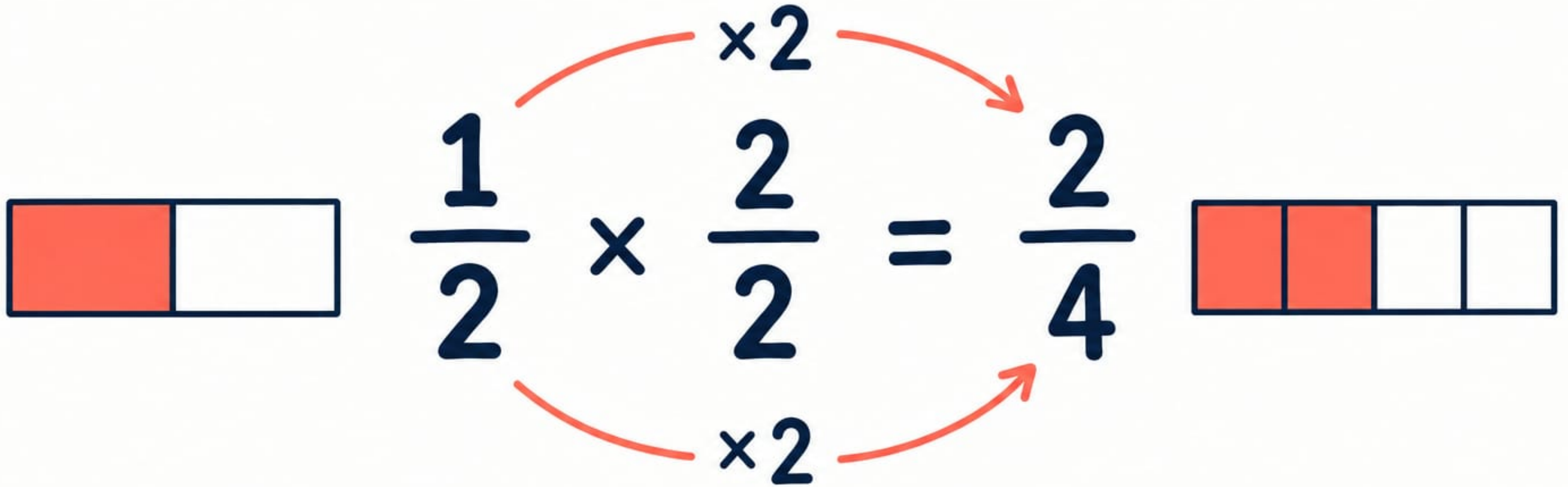
$$\frac{2}{4}$$



$$\frac{4}{8}$$

$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$$

The Same-Number Rule



The diagram illustrates the 'Same-Number Rule' for equivalent fractions. It shows the equation $\frac{1}{2} \times \frac{2}{2} = \frac{2}{4}$. Two red curved arrows, both labeled 'x2', indicate the multiplication of the numerator and denominator of $\frac{1}{2}$ by 2. To the left of the equation is a rectangle divided into two equal halves, with the left half shaded red. To the right is a rectangle divided into four equal quarters, with the first two quarters shaded red.

$$\frac{1}{2} \times \frac{2}{2} = \frac{2}{4}$$

Multiply top and bottom by the same number.

Equivalent Fractions

1

$$\frac{1}{3} = \frac{2}{6}$$



2

$$\frac{2}{5} = \frac{4}{10}$$



Your Turn



1

$$\frac{1}{2} = \frac{\quad}{4}$$



2

$$\frac{1}{3} = \frac{\quad}{6}$$



3

$$\frac{2}{5} = \frac{\quad}{10}$$



4

$$\frac{3}{4} = \frac{\quad}{8}$$



Exit Ticket



Complete $\frac{2}{3} = \frac{\quad}{6}$. What did you multiply?