

Luna's Space Adventure

Grade 4 · Equivalent fractions · 4.NF.A.1

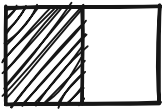
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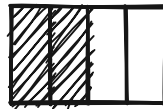


Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Cut the pieces smaller The same amount, cut into more pieces. Write both fractions.









Multiply top and bottom Multiply the numerator and denominator by the same number.

$$\frac{3}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{4}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{2}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{4}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{2}{3} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{3}{6} = \frac{\boxed{}}{\boxed{}}$$

Go the other way Divide top and bottom by the same number.

$$\frac{2}{4} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{3}{9} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{3}{6} = \frac{\boxed{}}{\boxed{}}$$

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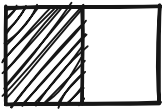
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ANSWER KEY



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

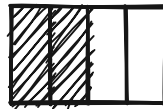
Cut the pieces smaller The same amount, cut into more pieces. Write both fractions.



$\frac{1}{2}$



$\frac{3}{6}$



$\frac{2}{4}$



$\frac{6}{12}$

Multiply top and bottom Multiply the numerator and denominator by the same number.

$$\frac{3}{5} = \frac{6}{10}$$

$$\frac{4}{5} = \frac{12}{15}$$

$$\frac{2}{5} = \frac{8}{20}$$

$$\frac{4}{5} = \frac{16}{20}$$

$$\frac{2}{3} = \frac{10}{15}$$

$$\frac{3}{6} = \frac{12}{24}$$

Go the other way Divide top and bottom by the same number.

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

$$\frac{3}{9} = \frac{1}{3}$$

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

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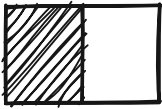
GUIDE

① What this sheet practises

Why two fractions can be equal: the same whole cut into more, smaller pieces. Your child uses pictures, then multiplies or divides the top and bottom by the same number.

② A problem from the sheet, worked out

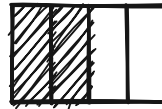
Cut the pieces smaller The same amount, cut into more pieces. Write both fractions.



$\frac{1}{2}$



$\frac{3}{6}$



$\frac{2}{4}$



$\frac{6}{12}$

How: Cut each piece into 3 and there are 3 times as many pieces, and 3 times as many shaded: $\frac{1}{2} = \frac{3}{6}$. Multiply or divide the top and bottom by the same number.

③ Words to know

equivalent worth the same amount

numerator the top number: how many parts

denominator the bottom number: parts in the whole

simplest form fewest pieces, like $\frac{1}{2}$ for $\frac{4}{8}$

④ Watch for

- Multiplying only the top or only the bottom.
- Adding the same number to the top and bottom: $\frac{1}{2}$ is not $\frac{2}{3}$.
- Counting the shaded pieces before the new cuts instead of after.

⑤ Where it fits

BEFORE

3.NF.A.3

Find equivalent fractions and compare fractions by thinking about their size.

THIS SHEET

4.NF.A.1

Explain why two fractions are equal, using pictures and models.

NEXT

5.NF.A.1

Add and subtract fractions with unlike denominators.

⑥ Helping at home

Cut a sandwich in half, then cut each half into 2 or 3. Count the pieces to see $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$.