ALBERT

Name _____ Date _____

Equivalent Fractions Worksheet

Grade 4 · Common Core 4.NF.A.1

> Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

Practice

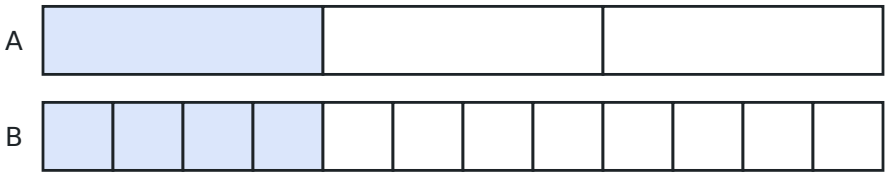
Builds the skill step by step.

1. Fill in the box: $\frac{1}{2} = \frac{\square}{6}$

2. Fill in the box: $\frac{2}{3} = \frac{\square}{12}$

3. Fill in the box: $\frac{3}{5} = \frac{6}{\square}$

4. The bars are the same size. Bar A shows $\frac{1}{3}$. What fraction of bar B is shaded?



5. Which fraction is equivalent to $\frac{3}{4}$?

   A. $\frac{9}{12}$

   B. $\frac{6}{12}$

   C. $\frac{3}{8}$

   D. $\frac{4}{3}$

6. Fill in the box: $\frac{4}{10} = \frac{2}{\square}$

7. Multiply the top and bottom of $\frac{2}{5}$ by 3. What fraction do you get?

8. $\frac{1}{4} = \frac{3}{12}$. How do the parts of $\frac{3}{12}$ compare with the parts of $\frac{1}{4}$?

   A. There are 3 times as many parts, and each part is bigger.

   B. There are 3 times as many parts, and each part is smaller.

   C. There are fewer parts, and each part is bigger.

   D. There are the same number of parts.

9. Fill in the box: $\frac{5}{6} = \frac{\square}{12}$

10. Fill in the box: $\frac{8}{12} = \frac{2}{\square}$

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On Level

Grade-level practice.

1. Fill in the box: $\frac{7}{10} = \frac{\square}{100}$

2. Fill in the box: $\frac{6}{8} = \frac{\square}{4}$

3. Which fraction is NOT equal to $\frac{1}{2}$?

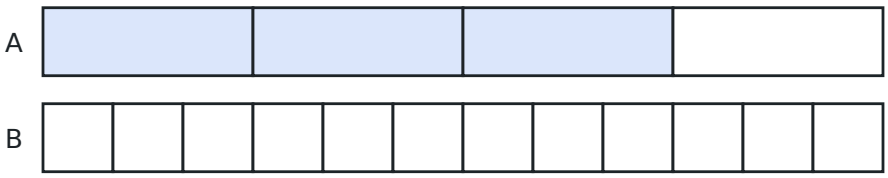
   A. $\frac{3}{5}$

   B. $\frac{5}{10}$

   C. $\frac{6}{12}$

   D. $\frac{4}{8}$

4. The bars are the same size. How many twelfths of bar B must be shaded to match bar A?



5. Write two fractions equal to $\frac{2}{5}$: first in tenths, then in hundredths.

6. Fill in the box: $\frac{9}{12} = \frac{3}{\square}$

7. Ava says $\frac{2}{3} = \frac{4}{6}$ because she multiplied the top and bottom by 2. Why does that work?

   A. It doesn't work; $\frac{4}{6}$ is more than $\frac{2}{3}$.

   B. Because adding 2 to the top and bottom keeps a fraction the same.

   C. Each third is split into 2 equal parts, so there are twice as many parts and each is half as big.

   D. Because 4 and 6 are bigger numbers, so the fraction is bigger.

8. Fill in the box: $\frac{\square}{5} = \frac{8}{10}$

9. Lena ate $\frac{6}{8}$ of a pizza. Write the amount she ate as a fraction in fourths.

10. Fill in the box: $\frac{10}{12} = \frac{\square}{6}$

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Challenge

Multi-step and word problems that stretch it.

1. Fill in both boxes: $\frac{1}{3} = \frac{\square}{6} = \frac{\square}{12}$. Write the first box, then the second.

2. Fill in the box: $\frac{2}{5} = \frac{\square}{100}$

3. Jo says $\frac{3}{4} = \frac{5}{6}$ because she added 2 to the top and the bottom. Which is true?

   A. She is right.

   B. She is wrong. $\frac{3}{4} = \frac{5}{8}$.

   C. She is right, because both fractions are close to 1.

   D. She is wrong. Adding changes the size; $\frac{3}{4} = \frac{9}{12}$ but $\frac{5}{6} = \frac{10}{12}$.

4. A recipe needs $\frac{3}{4}$ cup of milk. Ben only has a $\frac{1}{8}$ cup scoop. How many scoops does he need?

5. Fill in both boxes: $\frac{60}{100} = \frac{\square}{10} = \frac{\square}{5}$. Write the first box, then the second.

6. Which pair shows a fraction and the fraction you get by multiplying its top and bottom by 4?

   A. $\frac{2}{3}$ and $\frac{8}{12}$

   B. $\frac{2}{3}$ and $\frac{6}{7}$

   C. $\frac{2}{3}$ and $\frac{8}{3}$

   D. $\frac{2}{3}$ and $\frac{2}{12}$

7. Fill in the box: $\frac{5}{\square} = \frac{10}{12}$

8. Fill in the box: $\frac{\square}{8} = \frac{9}{12}$

9. $\frac{2}{5} = \frac{4}{10}$. Which statement is true?

   A. The parts in fifths are bigger, but the two fractions are the same size.

   B. The parts in tenths are bigger.

   C. $\frac{4}{10}$ is bigger because 4 is more than 2.

   D. $\frac{2}{5}$ is bigger because fifths are bigger parts.

10. A grid has 100 equal squares. Kai shades $\frac{6}{10}$ of the grid. How many squares does he shade?