

Key Concept and Vocabulary

$$\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12}$$

Multiply or divide the numerator and denominator by the same number.

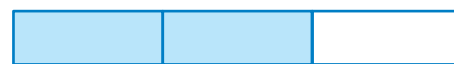
$$\frac{8}{12} = \frac{8 \div 4}{12 \div 4} = \frac{2}{3}$$

Equivalent fractions



Visual Model

$$\frac{2}{3}$$



equivalent fractions

$$\frac{8}{12}$$



Skill Examples

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

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

3. $\frac{15}{20} = \frac{15 \div 5}{20 \div 5} = \frac{3}{4}$

4. $\frac{63}{56} = \frac{63 \div 7}{56 \div 7} = \frac{9}{8}$

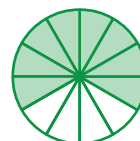
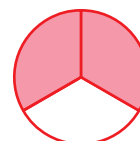
$\frac{1}{2}$, $\frac{2}{4}$, and $\frac{3}{6}$ are all equivalent.

Application Example

5. A pizza has 12 pieces. Two-thirds of the pizza is left. How many pieces are left?

$$\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12}$$

There are 8 pieces left.



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Find the equivalent fraction.

6. $\frac{1}{2} = \frac{\square}{8}$

7. $\frac{3}{5} = \frac{\square}{15}$

8. $\frac{4}{3} = \frac{\square}{9}$

9. $\frac{1}{3} = \frac{\square}{27}$

10. $\frac{8}{20} = \frac{\square}{5}$

11. $\frac{56}{64} = \frac{\square}{8}$

12. $\frac{6}{14} = \frac{3}{\square}$

13. $\frac{36}{16} = \frac{9}{\square}$

14. $\frac{1}{5} = \frac{10}{\square}$

15. $\frac{12}{36} = \frac{3}{\square}$

16. $\frac{7}{10} = \frac{14}{\square}$

17. $\frac{9}{24} = \frac{3}{\square}$

Shade the model so that the fraction is equivalent.

18. =

19. =

20. **PIZZA** A pizza has 12 pieces. Three-fourths of the pizza is left. How many pieces are left? _____

21. **SURVEY** A survey asked 240 people if they liked a movie. One-third liked it, one-sixth did not like it, and one-half had not seen it. How many people are in each of the three categories? _____