

REVIEW: Equivalent Fractions

Name _____

Key Concept and Vocabulary

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

Multiply numerator and denominator by the same number.

Equivalent Fractions



Visual Model

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



equivalent fractions

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



Skill Examples

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

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

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

4. $\frac{4}{5} = \frac{4 \cdot 20}{5 \cdot 20} = \frac{80}{100}$

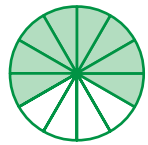
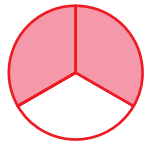
$\frac{1}{2}$, $\frac{2}{4}$, and $\frac{3}{6}$ are all equivalent.

Application Example

5. You eat two-thirds of a pizza that has 12 pieces. How many pieces do you eat?

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

- You eat 8 pieces.



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Check your answers at BigIdeasMath.com.

Write a fraction that is equivalent to the given fraction.

6. $\frac{1}{2} = \frac{\square}{4}$

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

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

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

10. $\frac{2}{5} = \frac{\square}{20}$

11. $\frac{7}{8} = \frac{\square}{64}$

12. $\frac{3}{7} = \frac{6}{\square}$

13. $\frac{9}{4} = \frac{36}{\square}$

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

15. $\frac{3}{9} = \frac{12}{\square}$

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

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

Shade the model so that the fraction is equivalent.



20. **PIZZA** You eat three-fourths of a pizza that has 12 pieces. How many pieces do you eat? _____

21. **SURVEY** A survey asked 240 people if they liked the movie "Star Wars." 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? _____

REVIEW: Simplifying Fractions

Name _____

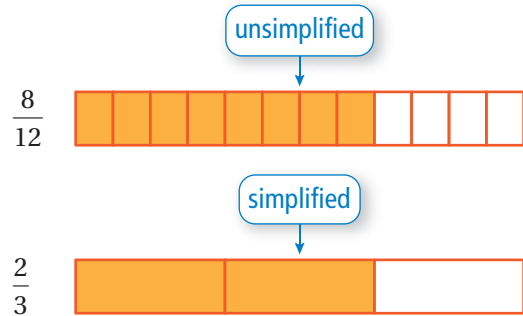
Key Concept and Vocabulary

$$\frac{8}{12} = \frac{2 \cdot \cancel{4}}{3 \cdot \cancel{4}} = \frac{2}{3}$$

Divide numerator and denominator by common factor.



Visual Model



Skill Examples

1. $\frac{2}{4} = \frac{1 \cdot \cancel{2}}{2 \cdot \cancel{2}} = \frac{1}{2}$

2. $\frac{3}{6} = \frac{1 \cdot \cancel{3}}{2 \cdot \cancel{3}} = \frac{1}{2}$

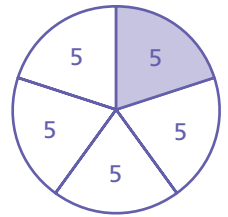
3. $\frac{15}{20} = \frac{3 \cdot \cancel{5}}{4 \cdot \cancel{5}} = \frac{3}{4}$

4. $\frac{80}{100} = \frac{4 \cdot \cancel{20}}{5 \cdot \cancel{20}} = \frac{4}{5}$

Application Example

5. Five of the 25 students in your class have a Facebook account. Write this fraction in simplified form.

$$\frac{5}{25} = \frac{1 \cdot \cancel{5}}{5 \cdot \cancel{5}} = \frac{1}{5}$$



- One-fifth of your class has a Facebook account.

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Check your answers at BigIdeasMath.com.

Simplify the fraction.

6. $\frac{16}{18} =$ _____

7. $\frac{10}{12} =$ _____

8. $\frac{6}{8} =$ _____

9. $\frac{15}{45} =$ _____

10. $\frac{12}{40} =$ _____

11. $\frac{14}{21} =$ _____

12. $\frac{6}{2} =$ _____

13. $\frac{20}{50} =$ _____

14. $\frac{12}{30} =$ _____

15. $\frac{20}{15} =$ _____

16. $\frac{75}{85} =$ _____

17. $\frac{21}{35} =$ _____

Shade the model so that the fraction is simplified.



20. **FACEBOOK** Eight of the 24 students in your class have a Facebook account. Write this fraction in simplified form. _____

21. **SIMPLIFYING** Write five different fractions that each simplify to two-fifths.
- _____