REVIEW: Simplifying Fractions

Name _____

Key Concept and Vocabulary

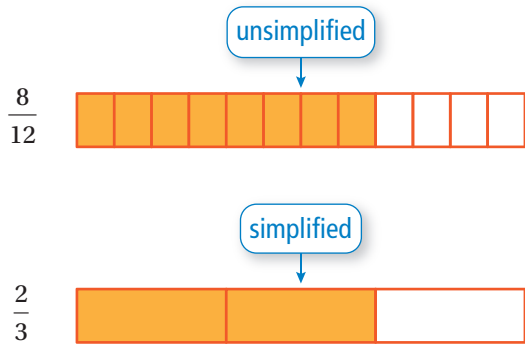Divide the numerator and the denominator by a common factor.

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

Simplest form: The numerator and denominator have no common factors other than 1.

Simplifying fractions

Visual Model

unsimplified

$\frac{8}{12}$

simplified

$\frac{2}{3}$

Skill Examples

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

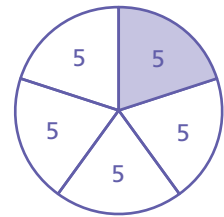2. $\frac{3}{6} = \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$

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

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

Application Example

5. Five of the 25 students in your class have a social media account. Write this fraction in simplest form.

$$\frac{5}{25} = \frac{5 \div 5}{25 \div 5} = \frac{1}{5}$$

5 5
5   5
   5

One-fifth of the students in your class have a social media account.

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Check your answers at BigIdeasMath.com.

Write the fraction in simplest form.

6. $\frac{16}{18} = \underline{\frac{8}{9}}$

7. $\frac{10}{12} = \underline{\frac{5}{6}}$

8. $\frac{6}{8} = \underline{\frac{3}{4}}$

9. $\frac{15}{45} = \underline{\frac{1}{3}}$

10. $\frac{12}{40} = \underline{\frac{3}{10}}$

11. $\frac{14}{21} = \underline{\frac{2}{3}}$

12. $\frac{6}{2} = \underline{3}$

13. $\frac{20}{50} = \underline{\frac{2}{5}}$

14. $\frac{24}{16} = \underline{\frac{3}{2}}$

15. $\frac{20}{15} = \underline{\frac{4}{3}}$

16. $\frac{55}{60} = \underline{\frac{11}{12}}$

17. $\frac{21}{35} = \underline{\frac{3}{5}}$

Shade the model so that the fraction is simplified.

18.

19.
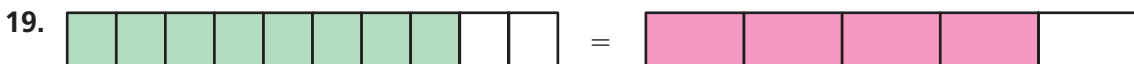
20. **SOCIAL MEDIA** Eight of the 24 students in your class have a social media account. Write this fraction in simplest form. _____ $\frac{8}{24} = \frac{1}{3}$

21. **SIMPLIFYING** Write five different fractions that each simplify to $\frac{2}{5}$.

Sample answer: $\frac{4}{10}, \frac{10}{25}, \frac{20}{50}, \frac{24}{60}, \frac{30}{75}$