REVIEW: Simplifying Fractions

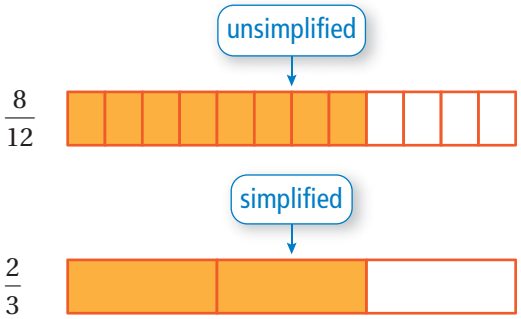
Name _____

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

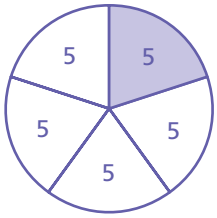


Skill Examples

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 simplifed 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.

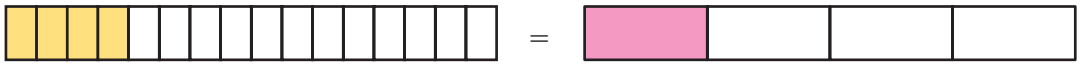
PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Simplify the fraction.

6. $\frac{16}{18} = \frac{8}{9}$
7. $\frac{10}{12} = \frac{5}{6}$
8. $\frac{6}{8} = \frac{3}{4}$
9. $\frac{15}{45} = \frac{1}{3}$
10. $\frac{12}{40} = \frac{3}{10}$
11. $\frac{14}{21} = \frac{2}{3}$
12. $\frac{6}{2} = 3$
13. $\frac{20}{50} = \frac{2}{5}$
14. $\frac{12}{30} = \frac{2}{5}$
15. $\frac{20}{15} = \frac{4}{3}$
16. $\frac{75}{85} = \frac{15}{17}$
17. $\frac{21}{35} = \frac{3}{5}$

Shade the model so that the fraction is simplified.

18. 

19. 

20. **FACEBOOK** Eight of the 24 students in your class have a Facebook account. Write this fraction in simplified form. _____ $\frac{8}{24} = \frac{1}{3}$

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

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