REVIEW: Simplifying Fractions

Name _____
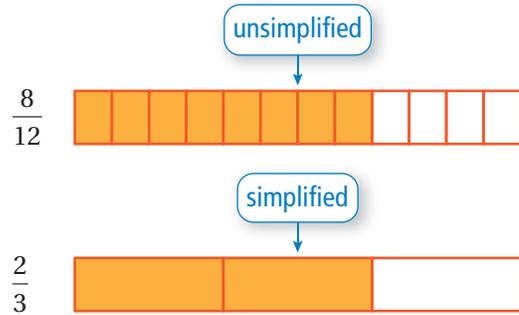
Key Concept and Vocabulary

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

Simplifying Fractions

Divide numerator and denominator by common factor.

Visual Model

unsimplified

$\frac{8}{12}$

simplified

$\frac{2}{3}$

Skill Examples

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

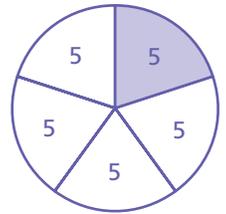**2.** $\dfrac{3}{6} = \dfrac{1 \cdot \cancel{3}}{2 \cdot \cancel{3}} = \dfrac{1}{2}$

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

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

Application Example

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

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

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

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Check your answers at BigIdeasMath.com.

Simplify the fraction.

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

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

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

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

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

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

12. $\dfrac{6}{2} =$ _____
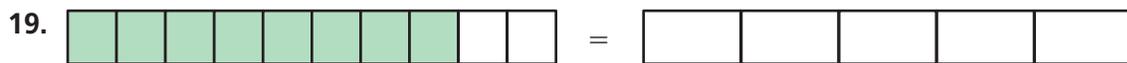
13. $\dfrac{20}{50} =$ _____

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

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

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

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

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. _____

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