

REVIEW: Simplifying Complex Fractions

Name _____

Key Concept and Vocabulary

A complex fraction is a fraction that contains a fraction in its numerator, denominator, or both. To simplify a complex fraction, divide its numerator by its denominator.



Algebra: $\frac{\frac{a}{b}}{\frac{c}{d}} = \frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c}$, where $b, c, d \neq 0$

Numbers: $\frac{\frac{2}{3}}{\frac{5}{6}} = \frac{2}{3} \div \frac{5}{6} = \frac{2}{3} \cdot \frac{6}{5} = \frac{4}{5}$

Skill Examples

1. $\frac{\frac{5}{8}}{4} = \frac{5}{8} \div 4 = \frac{5}{8} \cdot \frac{1}{4} = \frac{5}{32}$

2. $\frac{15}{\frac{9}{10}} = 15 \div \frac{9}{10} = \frac{15}{1} \cdot \frac{10}{9} = \frac{50}{3}$

3. $\frac{\frac{1}{3}}{\frac{5}{7}} = \frac{1}{3} \div \frac{5}{7} = \frac{1}{3} \cdot \frac{7}{5} = \frac{7}{15}$

4. $\frac{\frac{9}{16}}{\frac{3}{8}} = \frac{9}{16} \div \frac{3}{8} = \frac{9}{16} \cdot \frac{8}{3} = \frac{3}{2}$



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Simplify the complex fraction.

5. $\frac{\frac{3}{2}}{6} = \underline{\hspace{2cm}}$

6. $\frac{20}{\frac{4}{5}} = \underline{\hspace{2cm}}$

7. $\frac{\frac{9}{2}}{\frac{12}{7}} = \underline{\hspace{2cm}}$

8. $\frac{\frac{7}{10}}{\frac{9}{20}} = \underline{\hspace{2cm}}$

9. $\frac{\frac{2}{3}}{\frac{16}{27}} = \underline{\hspace{2cm}}$

10. $\frac{5}{\frac{7}{10}} = \underline{\hspace{2cm}}$

11. $\frac{\frac{12}{17}}{8} = \underline{\hspace{2cm}}$

12. $\frac{\frac{3}{14}}{\frac{13}{49}} = \underline{\hspace{2cm}}$

13. $\frac{\frac{27}{32}}{\frac{7}{8}} = \underline{\hspace{2cm}}$

14. $\frac{\frac{9}{10}}{3} = \underline{\hspace{2cm}}$

15. $\frac{6}{\frac{1}{6}} = \underline{\hspace{2cm}}$

16. $\frac{\frac{4}{5}}{\frac{22}{25}} = \underline{\hspace{2cm}}$

17. $\frac{24}{\frac{18}{7}} = \underline{\hspace{2cm}}$

18. $\frac{\frac{1}{4}}{\frac{1}{10}} = \underline{\hspace{2cm}}$

19. $\frac{\frac{3}{5}}{16} = \underline{\hspace{2cm}}$

20. $\frac{\frac{16}{21}}{\frac{8}{9}} = \underline{\hspace{2cm}}$