

# REVIEW: Evaluating 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.

Complex fractions



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

Numbers:  $\frac{\frac{2}{3}}{\frac{5}{6}} = \frac{2}{3} \div \frac{5}{6} = \frac{2}{3} \cdot \frac{6}{5} = \frac{12}{15} = \frac{4}{5}$

## Skill Examples

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

2.  $\frac{15}{\frac{9}{10}} = 15 \div \frac{9}{10} = \frac{15}{1} \cdot \frac{10}{9} = \frac{150}{9} = \frac{50}{3}$

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.  $\frac{\frac{9}{16}}{\frac{3}{8}} = \frac{9}{16} \div \frac{3}{8} = \frac{9}{16} \cdot \frac{8}{3} = \frac{72}{48} = \frac{3}{2}$



## PRACTICE MAKES PURR-FECT®

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Simplify the complex fraction.

5.  $\frac{\frac{3}{2}}{6} = \frac{1}{4}$

6.  $\frac{20}{\frac{4}{5}} = \frac{25}{1}$

7.  $\frac{9}{\frac{2}{12}} = \frac{21}{8}$

8.  $\frac{7}{\frac{10}{9}} = \frac{14}{9}$

9.  $\frac{\frac{2}{3}}{\frac{16}{27}} = \frac{9}{8}$

10.  $\frac{5}{\frac{7}{10}} = \frac{50}{7}$

11.  $\frac{12}{\frac{17}{8}} = \frac{3}{34}$

12.  $\frac{3}{\frac{14}{13}} = \frac{21}{26}$

13.  $\frac{\frac{27}{32}}{\frac{7}{8}} = \frac{27}{28}$

14.  $\frac{9}{\frac{10}{3}} = \frac{3}{10}$

15.  $\frac{6}{\frac{1}{6}} = \frac{36}{1}$

16.  $\frac{4}{\frac{5}{22}} = \frac{10}{11}$

17.  $\frac{24}{\frac{18}{7}} = \frac{28}{3}$

18.  $\frac{1}{\frac{4}{10}} = \frac{5}{2}$

19.  $\frac{3}{\frac{5}{16}} = \frac{3}{80}$

20.  $\frac{16}{\frac{21}{8}} = \frac{6}{7}$