

Complex Fractions and Unit Rates – L1-2

Fractions like $\frac{\frac{2}{3}}{\frac{1}{4}}$ are called complex fractions. **Complex fractions** are fractions with a numerator, denominator, or both that are also fractions. (Fractions within a fraction)

Example 1

Simplify $\frac{\frac{2}{3}}{\frac{1}{4}}$.

A fraction can also be written as a division problem.

$$\frac{\frac{2}{3}}{\frac{1}{4}} =$$

Write the complex fraction as a division problem.

$$=$$

Evaluate the division problem. (Multiply by the reciprocal)

$$=$$

Simplify.

So, $\frac{\frac{2}{3}}{\frac{1}{4}}$ is equal to

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Simplify.

<p>1. $\frac{\frac{3}{1}}{\frac{1}{3}}$</p>	<p>2. $\frac{\frac{2}{10}}{\frac{1}{3}}$</p>	<p>3. $\frac{\frac{4}{5}}{\frac{1}{4}}$</p>
<p>4. $\frac{\frac{3}{5}}{\frac{1}{3}}$</p>	<p>5. $\frac{1}{\frac{4}{5}}$</p>	<p>6. $\frac{\frac{1}{7}}{10}$</p>

Example 2

A turtle walks $\frac{7}{8}$ of a mile in 50 minutes. What is the unit rate expressed in miles per hour?

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7) Izzy ran $6\frac{3}{4}$ miles in 45 minutes. Julia ran $3\frac{3}{4}$ miles in 25 minutes. Who ran at a faster pace?

*8) For Anthony's birthday his mother is making cupcakes for his 12 friends. The recipe calls for $3\frac{1}{3}$ cups of flour. The recipe makes $2\frac{1}{2}$ dozen cupcakes. Anthony's mother only has 1 cup of flour. Is there enough flour for each of Anthony's friends to get a cupcake?