

Introduction to Fractions

A Number alone has no meaning. in real life, it always stands for a certain amount of something (dollars, bicycles, people, oranges, etc.).

A fraction also has no meaning by itself. It is only a way to represent a part of something. $\frac{3}{4}$ (three quarters) for example, has no meaning. $\frac{3}{4}$ of a dollar, however, certainly has a meaning. It means 3 parts of a dollar which originally had 4 equal parts (4 quarters) when it was "fractioned."

Renaming ("Reducing") Fractions

Any fraction can be expressed in a great many ways.

$\frac{3}{6}$ or $\frac{2}{4}$ or $\frac{4}{8}$ or $\frac{5}{10}$ or $\frac{50}{100}$ are all names for the same amount of something but the

simplest mathematical name for all these fractions is $\frac{1}{2}$ (one-half). For our fraction work, all fractions in answers to problems will always be put in their simplest forms.

In order to find out if a fraction is in its simplest form, carefully examine both the numerator (top number) and the denominator (bottom number) of the fraction. If there is a number which can be divided evenly into both the numerator and the denominator, then the fraction is not in its simplest form and can be "reduced" or "Simplified."

Example: $\frac{6}{9}$ The 6 and the 9 can each be divided evenly by a smaller digit (3)

$$\frac{6}{9} \div \frac{3}{3} = \frac{2}{3}$$

$\frac{2}{3}$ is the simplest form for the fraction $\frac{6}{9}$

Rename all fractions in simplest terms

1. $\frac{18}{30} = \text{---}$ 2. $\frac{5}{15} = \text{---}$ 3. $\frac{4}{10} = \text{---}$ 4. $\frac{9}{12} = \text{---}$

5. $\frac{4}{14} = \text{---}$ 6. $\frac{4}{12} = \text{---}$ 7. $\frac{6}{21} = \text{---}$ 8. $\frac{15}{30} = \text{---}$

9. $\frac{6}{15} = \text{---}$ 10. $\frac{15}{18} = \text{---}$ 11. $\frac{6}{27} = \text{---}$ 12. $\frac{8}{28} = \text{---}$

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