Reducing Fractions

Reducing Fractions

If I had 100 dollars and spent 50 dollars on a Opera ticket, I've spent half of my money. It must be that $\frac{50}{100} = \frac{1}{2}$. Whenever the number of the part which is on the top and the number of the whole which is at the bottom have the same relationship between them that a pair of smaller numbers have, you should always give the smaller pair answer. 3 is half of 6. 7 is half of 14. $\frac{1}{2}$ is the reduced form of $\frac{3}{6}$ and $\frac{2}{3}$ and $\frac{50}{100}$ and many other fractions.

A fraction should be reduced any time both the top and bottom number can be divided by the same smaller number. This way you can be sure the fraction is as simple as it can be.

$\frac{6}{12}$ both 6 and 12 can be divided by 6.

$$\frac{6}{12} = \frac{6 \div 6}{12 \div 6} = \frac{1}{2}$$

$\frac{1}{2}$ describes the same number relationship that $\frac{4}{8}$ did, but with smaller numbers.

$\frac{1}{2}$ is the reduced form of $\frac{4}{8}$.

$\frac{7}{21}$ both 7 and 21 can be divided by 7.

$$\frac{7}{21} = \frac{7 \div 7}{21 \div 7} = \frac{1}{3}$$

$\frac{1}{3}$ is the reduced form of $\frac{7}{21}$.

Reduce these fractions to lowest terms.

i. $\frac{18}{20} =$

ii. $\frac{44}{48} =$

iii. $\frac{35}{40} =$

iv. $\frac{10}{45} =$

v. $\frac{5}{15} =$

vi. $\frac{25}{60} =$