Reducing fractions *(Showing your work by two different ways)*

To reduce a fraction into its lowest terms, we need to find the gcf of numerator and denominator. Then divide both numerator and denominator by the gcf. Now there are two ways to do this.

The first method is showing the division by gcf and is very good to learn reducing fractions in the beginning. But as you go to multiplying and dividing fractions this method doesn't help much.

So, there is another method called ***cutting*** the numerator and denominator by their gcf. This method is very reliable and make your work way easier when you do multiplication and division of the fractions.

Let's learn both of the methods and you choose which method your teacher uses or you like to use. (Please stick to one method only, to avoid confusion).

Example: Reduce $\frac{15}{25}$ into lowest terms by both methods.

Division Method

Find the gcf of 15 and 25.

15 = 1, 3, 5, 15

25 = 1, 5, 25

Divide numerator and denominator with 5 to reduce the fraction into lowest terms.

$$\frac{15\div5}{25\div5} = \frac{3}{5}$$

Cutting Method

Find the gcf of 15 and 25.

15 = 1, 3, 5, 15

25 = 1, 5, 25

So, the gcf of 15 and 25 = 5

Cut numerator and denominator with 5. Don't show dividing by 5, but cutting lines over 15 and 25 and write other number which make 5 times 15 and 5 times 25, beside numerator and the denominator as shown below.