Writing the fractions into lowest terms

When a fraction is in its lowest terms or in simplest form, the numerator and denominator has only 1 as their common factor. For example, 3 and 5 has only 1 as their common factor and if we write a fraction having 3 as its numerator and 5 as its denominator then this fraction will be in its lowest terms.

$\dfrac{3}{5}$ This fraction is in its lowest terms as 3 and 5 have only 1 as their common factor.

If a fraction is not in lowest terms; it can be reduced into lowest terms by dividing the numerator and denominator by their ***greatest common factor (gcf)***.

For example: Reduce the following fraction into lowest terms. $\dfrac{18}{24}$

Solution: To reduce any fraction into its lowest terms always find the gcf of the numerator and denominator. Let's find the gcf of 18 and 24 by writing all of their factors as shown below:

18 = 1, 2, 3, 6, 9, 18

24 = 1, 2, 3, 4, 6, 8, 12, 24   *So gcf of 18 and 24 = 6*

$\dfrac{18 \div 6}{24 \div 6} = \dfrac{3}{4}$ **Therefore, the simplest form of** $\dfrac{18}{24} = \dfrac{3}{4}$

Example: Write the following fractions into lowest terms (simplest form).

1) $\dfrac{9}{15}$ Gcf of 9 and 15 is 3, so divide numerator and denominator by 3.

$\dfrac{9 \div 3}{15 \div 3} = \dfrac{3}{5}$

2) $\dfrac{9}{16}$

Gcf of 9 and 16 is 1, therefore, this fraction is already in its lowest terms.