

### Some Questions:

1)  $\frac{2}{5} + \frac{10}{12}$

$\frac{2}{5} + \frac{5}{6}$  (10 and 12 reduce each other)

LCM of 5 and 6 = 30 (5 is a prime number so it must be multiplied by 6 because it has no factors). The LCM is now the common denominator.

$\frac{12}{30} + \frac{25}{30}$  ( $\frac{30}{5} = 6 \times 2 = 12$  and  $\frac{30}{6} = 5 \times 5 = 25$ ). So 12 and 25 are now the new numerators.

**$\frac{37}{60}$**

2)  $3\frac{5}{6} - 1\frac{3}{10}$

$2\frac{5}{6} - \frac{3}{10}$  (subtract whole numbers  $3 - 1 = 2$ )

LCM of 6 and 10 = 30 (the prime factors of 6 =  $2 \times 3$  and the prime factors of 10 =  $2 \times 5$ , so you take what is unique in each =  $2 \times 3 \times 5 = 30$ ). The LCM is now the common denominator.

$\frac{25}{30} - \frac{9}{30}$  ( $\frac{30}{6} = 5 \times 2 = 10$  and  $\frac{30}{10} = 3 \times 3 = 9$ ). So 25 and 9 are now the new numerators.

$\frac{16}{30} = \frac{8}{15}$

3)  $2\frac{1}{5} - 1\frac{3}{10}$

$2\frac{1}{5} - 1\frac{3}{10}$  (subtract whole numbers  $2 - 1 = 1$ )

LCM of 5 and 10 = 10 (5 is a factor of 10). The LCM is now the common denominator.

$\frac{2}{10} - \frac{3}{10}$  ( $\frac{10}{5} = 2 \times 1 = 2$  and  $\frac{10}{10} = 1 \times 3 = 3$ ). So 2 and 3 are now the new numerators, **but there is a problem**. 2 is too small to subtract 3 from, so we have to borrow the value of the common denominator (LCM) from the whole number. **Borrowing 1 from the whole number is borrowing the equivalent of the LCM**. In this case, we borrow the value of 10 (LCM) from the whole number.

$0\frac{12}{10} - \frac{3}{10}$  ( $10 + 2 = 12$  and the whole number is now 0)

**$= \frac{9}{10}$**