

Example 1: Subtract the following mixed numbers:

$$9\frac{5}{6} - 6\frac{7}{15}$$

Solution:

$$9\frac{5}{6} - 6\frac{7}{15}$$

$$= 9\frac{5 \times 5}{6 \times 5} - 6\frac{7 \times 2}{15 \times 2}$$

$$= 9\frac{25}{30} - 6\frac{14}{30}$$

$$= 3\frac{11}{30}$$

lcd for 6 and 15 = 30, so change both denominators to 30.

Note: When change denominators, don't forget to change the numerator by the same number as shown in red.

Once the denominators are same, subtract the whole numbers to get new whole number and numerators to get new numerator for the answering mixed number.

Example 2: *Regrouping or borrowing from the whole number to change the numerator.*

You already know that every [mixed number](#) can be shown as the sum of whole number and the proper fraction. For example;

$$2\frac{4}{9} \text{ can be written as } 2 + \frac{4}{9}$$

Also, for example 6 can be written as $5 + 1 = 5 + \frac{1}{1}$ or $5\frac{1}{1}$

But note that $1 = \frac{1}{1} = \frac{2}{2} = \frac{3}{3}$ and so on. Therefore $6 = 5\frac{1}{1} = 5\frac{2}{2} = 5\frac{3}{3}$ and so on.

Some times, the numerator of a mixed number want to borrow from the whole number at the front to convert the proper fraction to an improper fraction. *To do this; one is reduced from the whole number and denominator is added to the numerator.* Yes! Subtract “one” from the whole number and add denominator to the numerator to get new numerator and new mixed number. Let's practice and develop this skill in the examples on the next lesson;