Add and Subtract Unlike Mixed Numbers - Guided Lesson Explanation

Explanation to #1

a) Get all the numbers using the same denominator.

The least common multiple of 3 and 9 is 9.

$$\frac{6}{3} = \frac{18}{9}$$

$$\frac{18}{9} - \frac{4}{9} = \frac{14}{9} \quad \text{This is in its simplest form.}$$

b) We need to find the common denominator once again. 20 is the least common multiple of 5 and 4. So we convert everything to a denominator of 20.

$$\frac{7}{5} = \frac{28}{20} \qquad\qquad \frac{1}{4} = \frac{5}{20}$$

$$\frac{28}{20} + \frac{5}{20} = \frac{33}{20}$$

Lets change it to a mixed number $\quad \frac{33}{20} \quad = \quad 1\frac{13}{20}$

Explanation to # 2

Subtract. Remember to add whole numbers to whole numbers and fractions to fractions.

The least common denominator of 2 and 4 is 4.

Write $9\frac{1}{2}$ with 4 as the denominator.

We have to simplify this equation and make fraction

$9\frac{1}{2}$ $=$ $9\frac{2}{4}$
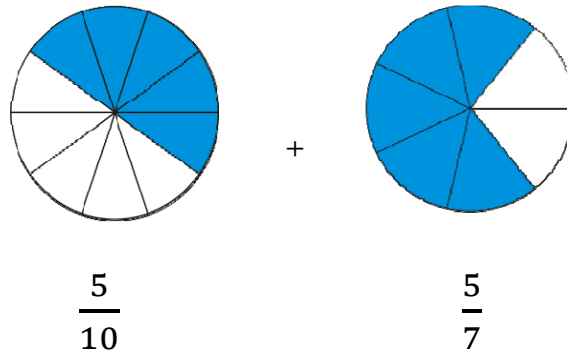
Now simplify.

$9\frac{2}{4}$ $+$ $3\frac{6}{4}$ $=$

We have Take L.C.M

$9\frac{2}{4}$ $+$ $3\frac{6}{4}$ $=$ $\frac{2+6}{4}$ $=$ $12\frac{8}{4}$ $= 14$

This answer is in the simplest form.

Explanation to #3

a) We have to add the numbers and write its proper fraction.

$\frac{5}{10}$ $\frac{5}{7}$

Find a common denominator.

70 is a common multiple of 10 and 7.

$\frac{5}{10}$ $=$ $\frac{35}{70}$ $\frac{5}{7}$ $=$ $\frac{50}{70}$

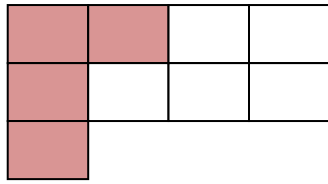$\frac{35}{70}$ $+$ $\frac{50}{70}$ $=$ $\frac{85}{70}$

Now reduce: $\frac{85}{70}$ $=$ $1\frac{15}{70}$ $=$ $1\frac{3}{14}$

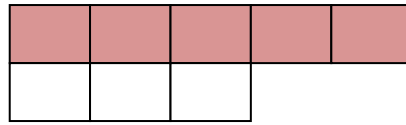b) We have to do subtraction and write its proper fraction.

                    +

$$\frac{4}{5}$$ $$\frac{5}{8}$$

Find a common denominator. 40 is a common denominator of 5 and 8.

$$\frac{4}{5} = \frac{32}{40} \qquad \frac{5}{8} = \frac{25}{40}$$

$$\frac{32}{40} \ + \ \frac{25}{40} \ = \ \frac{57}{40} \ = 1\frac{17}{40}$$