Adding and subtracting mixed numbers

A mixed number has a whole number followed by a fraction:

$1\frac{1}{3}$, $2\frac{5}{8}$, $176\frac{1}{2}$, and $8\frac{6}{7}$ are examples of mixed numbers

Note: Don't forget to add or subtract the whole numbers.

Ex. 1: $1\frac{1}{2}+2\frac{1}{3}=?$

$$1\frac{1}{2}=1\frac{3}{6}$$
$$+\ 2\frac{1}{3}=2\frac{2}{6}$$
$$3\frac{5}{6}$$

Ex. 2: $6\frac{1}{8}+5=?$

$$6\frac{1}{8}$$
$$+\ 5$$
$$11\frac{1}{8}$$

Ex. 3: $5\frac{1}{3}+\frac{3}{5}=?$

$$5\ \frac{1}{3}=5\ \frac{5}{15}$$
$$+\ \frac{3}{5}=\ \frac{9}{15}$$
$$5\ \frac{14}{15}$$

Ex. 4: $3\frac{6}{9}-1\frac{1}{2}=?$

$$3\ \frac{6}{9}=3\frac{12}{18}$$
$$-\ 1\ \frac{1}{2}=1\ \frac{9}{18}$$
$$2\frac{3}{18}=2\frac{1}{6}$$

When mixed numbers cannot be subtracted because the bottom fraction is larger than the top fraction, BORROW so that the fractions can be subtracted from each other.

Ex. 5: $8 - 2\frac{3}{4}=?$

$$8\ =7\ \frac{4}{4}$$
$$-\ 2\frac{3}{4}=2\frac{3}{4}$$
$$5\frac{1}{4}$$

The $\frac{3}{4}$ cannot be subtracted from nothing. One was borrowed from the 8 and changed to $\frac{4}{4}$. 8 was changed to a 7.Now the mixed numbers can be subtracted from each other.

Ex. 6: $5\frac{1}{6}-2\frac{1}{3}=?$

$$5\frac{1}{6}=\ 5\frac{1}{6}=\ 4\frac{7}{6}$$
$$-\ 2\frac{1}{3}\ =2\frac{2}{6}=\ 2\frac{2}{6}$$
$$2\frac{5}{6}$$

The $\frac{2}{6}$ cannot be subtracted from the $\frac{1}{6}$. One was borrowed from the 5, changed to $\frac{6}{6}$ and then added to the $\frac{1}{6}$ to make $\frac{7}{6}$. The whole number 5 was changed to a 4. Now the mixed numbers can be subtracted.