

AdditionExample 1

$$3\frac{1}{4} + 2\frac{1}{5}$$

$$= 5 \frac{5+4}{20}$$

$$= 5 \frac{9}{20}$$

First add the whole numbers. Then find the lowest common denominator and add the fractions.

Example 2

$$4\frac{4}{5} + 1\frac{2}{3}$$

$$= 5 \frac{12+10}{15}$$

$$= 5 \frac{22}{15}$$

$$= 6 \frac{7}{15}$$

If answer contains an improper fraction then

take out an extra whole number so that it becomes a proper fraction.

Example 3

$$5\frac{3}{4} + 2\frac{2}{3}$$

$$= 7 \frac{9+8}{12}$$

$$= 7 \frac{17}{12}$$

$$= 8 \frac{5}{12}$$

SubtractionExample 4

$$4\frac{3}{4} - 1\frac{1}{5}$$

$$= 3\frac{15-4}{20}$$

$$= 3\frac{11}{20}$$

First subtract the whole numbers. Then find the lowest common denominator and subtract the fractions.

Example 5

$$6\frac{3}{10} - 4\frac{3}{4}$$

$$= 1\cancel{2}\frac{20+}{20}\frac{6-15}{20}$$

$$= 1\frac{11}{20}$$

Because we cannot subtract 15 from 6 we borrowed a whole number.

This gave us an extra 20 twentieths which were added to the numerator to solve the problem.

Example 6

$$9\frac{1}{3} - 2\frac{3}{5}$$

$$= 6\cancel{7}\frac{15+}{15}\frac{5-9}{15}$$

$$= 6\frac{11}{15}$$

Again we have to borrow a whole number because we cannot subtract 9 from 5.

This time the whole number provided an extra 15 fifteenths.

Example 4 showed that you do not always have to borrow when subtracting.