Adding / Subtracting Fractions

Ex: $3\frac{7}{10} + 5\frac{8}{15}$

$2 \cdot 5 \quad 3 \cdot 5$

Step 1 LCD	*See previous page. -Factor each denominator -"Stack" factors
Step 2 Multiply by "1"	-Write in missing factors -Multiply missing factors from each row. -Multiply each fraction by 1 in the form of miss. factors.
Step 3 Add	-Add whole numbers. -Add numerators, keep denominator.
Step 4 Simplify	-Change improper fractions to mixed numbers; add whole number. -Reduce.

2 | 5 | 3 → 3
2 | 5 | 3 → 2

$3\frac{7}{10} \cdot \frac{3}{3} + 5\frac{8}{15} \cdot \frac{2}{2}$

$3\frac{21}{30} + 5\frac{16}{30}$

$8\frac{37}{30}$

$8 + 1\frac{7}{30}$

$9\frac{7}{30}$

Subtracting Whole and Mixed Numbers

- BORROWING

Ex: $8\frac{5}{12}\cdot\frac{4}{4} - 3\frac{11}{16}\cdot\frac{3}{3}$

$12 = 2 \cdot 6 = 2 \cdot 2 \cdot 3$

$16 = 4 \cdot 4 = 2 \cdot 2 \cdot 2 \cdot 2$

① LCD

② Missing Factors

* BORROWING
  - If there are not enough "slices", slice a whole pie & add slices together
  - Replace the whole number with one less than it is.
  - Replace the numerator with the sum of the numerator and denominator.

$2\,2\,2\,2\,3 \rightarrow 2\,2\,2\,2\,3 \rightarrow 3$

$7\,68$

$8\frac{20}{48} - 3\frac{33}{48}$

$4\frac{35}{48}$

③ Subtract

④ Simplify.

Ex: $7\frac{5}{8}\cdot\frac{7}{7} - 4\frac{25}{28}\cdot\frac{2}{2}$

$2\,2\,2\,7$

$2\,2\,2\,7$

$6\,\frac{91}{56} - 4\frac{50}{56}$

$2\frac{41}{56}$

$8\,\frac{7}{7} - 3\frac{5}{7}$

$5\frac{2}{7}$