

6-6 Subtracting Mixed #s with Renaming

$$\begin{array}{r} \text{Ex } 6\frac{1}{4} \\ - 4\frac{1}{2} \\ \hline \end{array}$$

change to
equivalent
frac. w/LCD

$$\begin{array}{r} 6\frac{1}{4} \\ - 4\frac{2}{4} \\ \hline \end{array}$$

*notice you can
not subtract 2
from 1

$$\begin{array}{r}
 5 \cancel{6} \frac{1}{4} \quad | \quad 1 \frac{1}{4} = \frac{5}{4} \\
 - 4 \frac{2}{4} \quad \longrightarrow \quad \frac{2}{4} \\
 \hline
 1 \frac{3}{4}
 \end{array}$$

- You have to rename/borrow from the whole #
- Bring over the (1) whole that you borrowed
- Bring over the frac. you have
- Make into an improper frac.
- Now have enough to sub.
- Don't forget the whole #s

Ex 1) $16 \rightarrow \frac{1}{4} \cdot 2 = \frac{2}{8} \quad \downarrow \quad \frac{2}{8} = \frac{10}{8}$

$- 3\frac{5}{8} = \frac{5}{8} \rightarrow \frac{5}{8}$

$13\frac{5}{8}$

$$2) \quad 3 \cancel{4} \frac{2 \cdot 4}{5 \cdot 4} = \frac{8}{20} \quad \rightarrow \quad \frac{8}{20} = \frac{28}{20}$$

$$- 2 \frac{3 \cdot 5}{4 \cdot 5} = \frac{15}{20} \quad \rightarrow \quad \frac{15}{20}$$

$$\boxed{\begin{array}{r} | \quad 13 \\ | \quad \hline | \quad 20 \end{array}}$$

$$\begin{array}{r} \textcircled{3} \quad \overline{67} \frac{1}{9} = \frac{1}{9} \quad | \cdot \frac{1}{9} = \frac{10}{9} \\ - 3 \frac{2}{3} = \frac{6}{9} \longrightarrow \frac{6}{9} \\ \hline \boxed{3 \frac{4}{9}} \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad \overline{34} \frac{1}{3} = \frac{3}{3} \\ - 1 \frac{2}{3} = \frac{2}{3} \\ \hline \boxed{2 \frac{1}{3}} \end{array}$$

* There is no fraction at the top to subtract from

* Write whole # (1)

$$\begin{array}{r} \textcircled{6} \quad \overline{20} \frac{1}{7} = \frac{7}{7} \\ - 8 \frac{3}{7} = \frac{3}{7} \\ \hline \boxed{12 \frac{4}{7}} \end{array}$$

as a frac. use the den. you have in 2nd frac.

$$\begin{array}{r} \textcircled{5} \quad \overline{14} \frac{1}{5} = \frac{5}{5} \\ - 4 \frac{1}{5} = \frac{1}{5} \\ \hline \boxed{10 \frac{4}{5}} \end{array}$$