6-5 Add/Subtract Mixed Numbers

* You must work w/fractions 1st!

1) $12\frac{3}{8} - 5\frac{1}{8} = 7\frac{2}{8} = \boxed{7\frac{1}{4}}$

2) $12\frac{1}{4} + 3\frac{5}{6}$

STACK!

$$\begin{array}{r} 12\ \frac{1}{4} = \frac{3}{12} \\ +\ 3\ \frac{5}{6} = \frac{10}{12} \\ \hline 15\ \frac{13}{12} = \boxed{16\frac{1}{12}} \\ 1\frac{1}{12} \end{array}$$

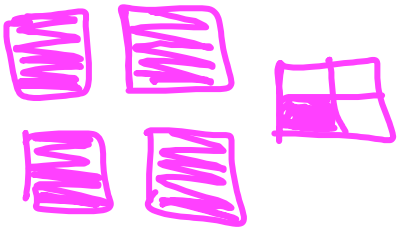
2 | 4 6
2 3

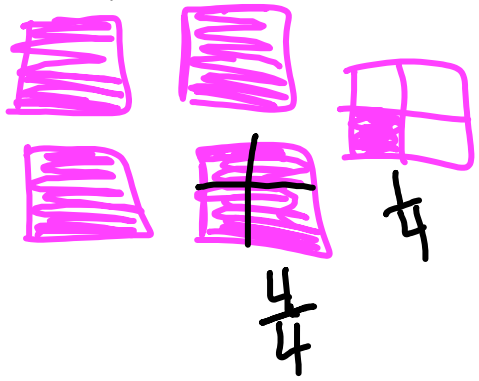
LCM = 12

6-6 Subtracting with Renaming

1.) Rename each.

a) $4\frac{1}{4} = 3\frac{5}{4}$





*shortcut: borrow 1 whole from whole #,
add numerator to denominator of fraction

b) $11\frac{3}{10} = 10\frac{13}{10}$

c) $\boxed{19} = 18\frac{4}{4}$

d) $32 = 31\frac{4}{4}$ $31\frac{32}{32}$
$31\frac{100}{100}$ $30\frac{8}{4}$

Add/Subtract. Write answers in SF.

1) $6\frac{1}{4} - 4\frac{2}{4}$

STACK

$5\frac{5}{4}$ ($\frac{4}{4}+\frac{1}{4}$)

$5\frac{5}{4}$

$-\ 4\frac{2}{4}$

$1\frac{3}{4}$

2) $17\frac{1}{4} - 3\frac{5}{8}$

$16\frac{5}{4}$ $\frac{1}{4}=\frac{2}{8}$

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

$13\frac{5}{8}$

3) $6\frac{3}{10} - 1\frac{4}{5}$

$6\frac{3}{10} = 5\frac{13}{10}$

$-\ 1\frac{4}{5} = 1\frac{8}{10}$

$4\frac{5}{10} = \boxed{4\frac{1}{2}}$

4) $15 - 4\frac{1}{5}$

$14\frac{5}{5}$

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

$\boxed{10\frac{4}{5}}$

5) $4\frac{2}{5} - 2\frac{3}{4}$

$3\frac{7}{5}\ \frac{28}{20}$

$-\ 2\frac{3}{4}\ \frac{15}{20}$

$1\frac{13}{20}$

6) $21 - 8\frac{3}{7}$

$\cancel{21}^{20}\ \frac{7}{7}$

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

$12\frac{4}{7}$

7) $7\frac{1}{9} - 3\frac{2}{3}$

$7\frac{1}{9} = 6\frac{10}{9}$

$-\ 3\frac{2}{3} = 3\frac{6}{9}$

$3\frac{4}{9}$

8) Taylor is putting molding around 2 doors. He needs $17\frac{1}{6}$ ft for a closet and $16\frac{2}{3}$ ft of molding for the entry door. If he buys 35 ft of molding, how much molding will be left?

$$17\tfrac{1}{6} \times 1 = \tfrac{1}{6}$$
$$+\,16\tfrac{2}{3} \times 2 = \tfrac{4}{6}$$
$$33\tfrac{5}{6}$$

$$35 - 33\tfrac{5}{6} = 1\tfrac{1}{6}\text{ ft}$$