T-MF Math Fundamentals Week 12 12/3

$2\frac{3}{7} + 3\frac{5}{7}$

$2+3$

$5 \quad \frac{8}{7}$

$\frac{3}{7} + \frac{5}{7} = \frac{8}{7}$

common denominator

$\frac{8}{7}$

$7\overline{)8}$ = 1, -7, 1 $\quad 1\frac{1}{7}$

$5 + 1\frac{1}{7} = \boxed{6\frac{1}{7}}$

$\cancel{9}^{8}\frac{1}{6}^{+6} - 3\frac{3}{6}$

$\frac{1}{6} - \frac{3}{6}$

$9\frac{1}{6}$

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

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

$8\frac{7}{6}$

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

$8-3=5$

$\frac{7}{6} - \frac{3}{6} = \frac{4}{6}$

$5\frac{4 \div 2}{6 \div 2} = \boxed{5\frac{2}{3}}$

1.) $2\frac{5}{8} + 3\frac{3}{8}$

$2+3=5$

$\frac{5}{8} + \frac{3}{8} = \frac{8}{8} = 1$

$5+1 = \boxed{6}$

2.) $4\frac{5}{6} + 7\frac{3}{6}$

$4+7=11$

$\frac{5}{6} + \frac{3}{6} = \frac{8 \div 2}{6 \div 2} =$

$11\frac{4}{3}$

$\frac{4}{3}$

$\boxed{3}\overline{)4}$ = 1, -3, 1 $\quad \frac{4}{3}$ $\quad 1\frac{1}{3}$

$11 + 1\frac{1}{3} = \boxed{12\frac{1}{3}}$

3.) $9\frac{4}{5} - 7\frac{3}{5}$

$9-7=2$ $\quad \frac{4}{5}-\frac{3}{5}=\frac{1}{5}$

$\boxed{2\frac{1}{5}}$

4.) $8\frac{1}{4} - 4\frac{3}{4}$

$8\frac{1}{4}$

$7+1\frac{1}{4}$

$\frac{4}{4}+\frac{1}{4}$

$\frac{4}{4}=1 \quad \frac{7}{7}=1$

$\frac{\square}{\square}=1 \quad \frac{9}{9}=1$

$7\frac{5}{4} - 4\frac{3}{4}$

$7-4=3$ $\quad \frac{5}{4}-\frac{3}{4}=\frac{2}{4}\div 2$

$\frac{1}{2}$

$\boxed{3\frac{1}{2}}$

$\frac{9}{12} - \frac{4}{6}$

$\frac{9}{12} = \frac{9}{12}$

$\frac{4}{6} = \frac{8}{12}$ ($*2$)

Multiples

12: 12, 24, 36, 48, 60, ...

6: 6, 12, 18, 24, 30, ...

$\frac{9}{12} - \frac{4}{6}$

$\frac{9}{12} - \frac{8}{12} = \boxed{\frac{1}{12}}$

"short-cut"

$\frac{9}{12} \quad \frac{4}{6}$

$\frac{54-48}{72} = \frac{6}{72}\div 6 = \boxed{\frac{1}{12}}$

$$\frac{6}{8} - \frac{2}{6}$$

$$\frac{6}{8} \xrightarrow{*3} \frac{18}{24} \qquad \frac{2}{6} \xrightarrow{*4} \frac{8}{24}$$

$$\frac{18}{24} - \frac{8}{24} = \frac{10}{24}$$

6 : 6, 12, 18, 24, 30, . . .

8 : 8, 16, 24, 32, . . .

$$\frac{10 \div 2}{24 \div 2} = \boxed{\frac{5}{12}}$$

$$\frac{6}{8} - \frac{2}{6} \qquad \frac{36 - 16}{48} = \frac{20 \div 4}{48 \div 4} \qquad \boxed{\frac{5}{12}}$$

$$\frac{6}{10} + \frac{2}{4}$$

$$\frac{6}{10} \xrightarrow{*4} \frac{24}{40} \qquad \frac{2}{4} \xrightarrow{*10} \frac{20}{40}$$

$$\frac{24}{40} + \frac{20}{40} = \frac{44 \div 4}{40 \div 4} = \boxed{\frac{11}{10}}$$

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

$$\frac{5}{6} \xrightarrow{*2} \frac{10}{12} \qquad \frac{3}{4} \xrightarrow{*3} \frac{9}{12}$$

$$\frac{10}{12} - \frac{9}{12} = \boxed{\frac{1}{12}}$$

2.) $\frac{7}{10} + \frac{5}{12}$

$$\frac{7}{10} \xrightarrow{*6} \frac{42}{60} \qquad \frac{5}{12} \xrightarrow{*5} \frac{25}{60}$$

$$\frac{42}{60} + \frac{25}{60} = \boxed{\frac{67}{60}}$$

$$\frac{67}{60}$$

$$\begin{array}{r} 1 \\ 60\overline{)67} \\ -60 \\ \hline 7 \end{array} \qquad \boxed{1\frac{7}{60}}$$

$2\frac{1}{5} + 1\frac{7}{10}$

$\frac{1}{5} + \frac{7}{10}$

$\frac{1}{5} = \frac{2}{10}$ (*2)

$\frac{2}{10} = \frac{7}{10}$

$2\frac{2}{10} + 1\frac{7}{10}$

$3 \quad \frac{9}{10}$

$3\frac{9}{10}$

"short cut"

$2\frac{1}{5} + 1\frac{7}{10}$

$\frac{(2*5)+1}{5} = \frac{11}{5}$ $\quad \frac{17}{10} = \frac{(1*10)+7}{10}$

$\frac{11}{5} + \frac{17}{10}$

$\frac{110+85}{50} = \frac{195 \div 5}{50 \div 5}$

$\frac{39}{10}$

$10\overline{)39}$ $\quad 3$

-30

9

$3\frac{9}{10}$

$\frac{39}{10}$

$6\frac{2}{3} + 4\frac{7}{8}$

$\frac{2}{3} + \frac{7}{8}$

$3 * 8 = 24$

$\frac{2}{3} = \frac{16}{24}$ (*8)

$\frac{7}{8} = \frac{21}{24}$ (*3)

$6\frac{16}{24} + 4\frac{21}{24}$

10

$\frac{16}{24} + \frac{21}{24} = \frac{37}{24}$

$10\frac{37}{24}$

$\frac{37}{24}$

$24\overline{)37}$ 1, -24, 13

$1\frac{13}{24}$

$10 + 1\frac{13}{24}$

$11\frac{13}{24}$