

Date: 09.19.18

$$\begin{aligned} \# \quad & 2 \frac{5}{6} + 3 \frac{1}{2} \\ &= \frac{17}{6} + \frac{7}{2} \\ &= \frac{17}{6} + \frac{\cancel{7}}{2} \times \frac{3}{3} \\ &= \frac{17}{6} + \frac{21}{6} \\ &= \frac{38}{6} \\ &= \frac{19}{3} = 6 \frac{1}{3} \end{aligned}$$

$$\begin{array}{r} 6 \frac{1}{3} \\ 3 \overline{)19} \\ \underline{18} \\ 1 \end{array}$$

# Another way:

$$\begin{aligned} & 2 \frac{5}{6} + 3 \frac{1}{2} \cdot \frac{3}{3} \\ & 2 \frac{5}{6} + 3 \cdot \frac{3}{6} \\ (2+3) &= 5 \quad \& \quad \frac{5}{6} + \frac{3}{6} = \frac{8}{6} = \frac{4}{3} \\ \therefore & 5 \frac{4}{3} = 5 + 1 \frac{1}{3} = 6 \frac{1}{3} \end{aligned}$$

$$\# 5 \frac{2}{15} + 3 \frac{4}{5}$$

$$= (5+3) = 8 + \left( \frac{2}{15} + \frac{4}{5} \right)$$

$$+ \left( \frac{2}{15} + \frac{4 \cdot 3}{5 \cdot 3} \right)$$

$$+ \left( \frac{2}{15} + \frac{12}{15} \right)$$

$$+ \frac{14}{15}$$

$$\cong 8 \frac{14}{15}$$

$$\# 5 \frac{3}{4} - 3 \frac{1}{2}$$

$$5-3 = 2 + \left( \frac{3}{4} - \frac{1}{2} \right)$$

$$+ \left( \frac{3}{4} - \frac{2}{4} \right)$$

$$+ \left( \frac{3-2}{4} \right)$$

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

$$= 2 \frac{1}{4}$$

$$\begin{aligned}
& \# 5 \frac{1}{2} - 3 \frac{3}{4} \\
& = 5 \frac{2}{4} - 3 \frac{3}{4} \\
& = 4 + \left(1 + \frac{2}{4}\right) - 3 \frac{3}{4} \\
& = 4 \frac{6}{4} - 3 \frac{3}{4} \\
& = (4-3) + \left(\frac{6}{4} - \frac{3}{4}\right) \\
& = 1 + \frac{3}{4} \\
& = 1 \frac{3}{4}
\end{aligned}$$

# Unit 02 Practice Assessment :

$$15. \quad 5 \frac{1}{2} + 3 \frac{1}{3}$$

$$\begin{aligned}
& = (5+3) + \left(\frac{1}{2} + \frac{1}{3}\right) \\
& = 8 + \left(\frac{1}{2} \cdot \frac{3}{3} + \frac{1}{3} \cdot \frac{2}{2}\right) \\
& = 8 + \left(\frac{3}{6} + \frac{2}{6}\right) \\
& = 8 + \frac{5}{6} = 8 \frac{5}{6}
\end{aligned}$$

$$16. \quad 4\frac{6}{7} + 5\frac{1}{2}$$

$$= 4 \frac{6}{7} \cdot \frac{2}{2} + 5 \frac{1}{2} \cdot \frac{7}{7}$$

$$= 4 \frac{12}{14} + 5 \frac{7}{14}$$

$$= (4+5) + \frac{12+7}{14}$$

$$= 9 + \frac{19}{14}$$

$$= 9 + 1\frac{5}{14}$$

$$= 10\frac{5}{14}$$

$$\begin{array}{r} 1\frac{5}{14} \\ 14 \overline{) 19} \\ \underline{14} \\ 5 \end{array}$$

$$\# \quad 3\frac{5}{6} + 2\frac{11}{15}$$

$$= 3 \frac{25}{30} + 2 \frac{22}{30}$$

$$= (3+2) + \left(\frac{25+22}{30}\right)$$

$$= 5 + \frac{47}{30}$$

$$= 5 + 1\frac{17}{30}$$

$$= 6 \frac{17}{30}$$

$$\begin{array}{r} 30 \overline{) 47} \left( 1\frac{17}{30} \right) \\ \underline{30} \\ 17 \end{array}$$

$$\begin{aligned}
 17. \quad & 3 \frac{1}{2} - 2 \frac{2}{3} \\
 &= 3 \frac{3}{6} - 2 \frac{4}{6} \\
 &= (3-2) + \left( \frac{3-4}{6} \right) \\
 &= 1 + \left( -\frac{1}{6} \right) \\
 &= 1 - \frac{1}{6} \\
 &= \frac{6}{6} - \frac{1}{6} \\
 &= \frac{6-1}{6} = \frac{5}{6}
 \end{aligned}$$

$$\begin{aligned}
 18. \quad & 8 \frac{2}{15} - 6 \frac{1}{2} \\
 &= \cancel{8} \frac{4}{30} - 6 \frac{15}{30} \\
 &= 7 \left( 1 + \frac{4}{30} \right) - 6 \frac{15}{30} \\
 &= 7 \frac{34}{30} - 6 \frac{15}{30} \\
 &= (7-6) + \left( \frac{34-15}{30} \right) \\
 &= 1 + \frac{19}{30} = 1 \frac{19}{30}
 \end{aligned}$$

$$31. \quad \frac{5}{12} + \frac{11}{12} - \frac{7}{12}$$

$$= \frac{5+11-7}{12}$$

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

$$= \frac{3}{4}$$

$$34. \quad 4 \frac{3}{4} + 8 \frac{2}{3} + 2 \frac{1}{2} + 1 \frac{5}{12}$$

$$= \frac{19}{4} + \frac{26}{3} + \frac{5}{2} + \frac{17}{12}$$

$$= \frac{57}{12} + \frac{104}{12} + \frac{30}{12} + \frac{17}{12}$$

$$= \frac{208}{12}$$

$$= 17 \frac{1}{3}$$

$$12 \overline{) \begin{array}{r} 17 \\ 208 \\ \underline{12} \\ 88 \\ \underline{84} \\ 4 \end{array}} \frac{1}{3}$$