Adding and Subtracting Mixed Numbers Worksheet Answer Key

Mixed, Not Shaken or Stirred

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

   $3\frac{2}{3} = \frac{3 \times 3 + 2}{3} = \frac{11}{3}$. The LCM of 3 and 5 is 15.

   $\frac{11}{3} = \frac{?}{15} = \frac{11 \times 5}{3 \times 5} = \frac{55}{15}$, and $\frac{1}{5} = \frac{?}{15} = \frac{1 \times 3}{5 \times 3} = \frac{3}{15}$.

   $\frac{55}{15} + \frac{3}{15} = \boxed{\frac{58}{15}}$.

   Also, $\frac{58}{15} = \frac{15 \times 3 + 13}{15}$.

   $3\frac{2}{3} + \frac{1}{5} = \boxed{3\frac{13}{15}}$.

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

   $2\frac{2}{5} = \frac{2 \times 5 + 2}{5} = \frac{12}{5}$. The LCM of 5 and 10 is 10.

   $\frac{12}{5} = \frac{?}{10} = \frac{12 \times 2}{5 \times 2} = \frac{24}{10}$.

   $\frac{24}{10} + \frac{1}{10} = \frac{25}{10} = \boxed{\frac{5}{2}}$.

   Also, $\frac{5}{2} = \frac{2 \times 2 + 1}{2}$.

   $2\frac{2}{5} + \frac{1}{10} = \boxed{2\frac{1}{2}}$.

3. $3\frac{1}{3} + \frac{5}{6}$ $3\frac{1}{3} = \frac{3 \times 3 + 1}{3} = \frac{10}{3}$. LCM of 3 and 6 is 6.

   $\frac{10}{3} = \frac{?}{6} = \frac{10 \times 2}{3 \times 2} = \frac{20}{6}$, and $\frac{20}{6} + \frac{5}{6} = \boxed{\frac{25}{6}}$.

   Also, $\frac{25}{6} = \frac{6 \times 4 + 1}{6}$.

$3\frac{1}{3} + \frac{5}{6} = \boxed{4\frac{1}{6}}$.

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

   $5\frac{2}{3} = \frac{5 \times 3 + 2}{3} = \frac{17}{3}$. LCM of 3 and 7 is 21.

   $\frac{17}{3} = \frac{?}{21} = \frac{17 \times 7}{3 \times 7} = \frac{119}{21}$, and $\frac{4}{7} = \frac{?}{7} = \frac{4 \times 3}{7 \times 3} = \frac{12}{21}$.

   $\frac{119}{21} + \frac{12}{21} = \boxed{\frac{131}{21}}$.

   Also, $\frac{131}{21} = \frac{21 \times 6 + 5}{15}$

   $5\frac{2}{3} + \frac{4}{7} = \boxed{6\frac{5}{21}}$.

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

   $2\frac{1}{8} = \frac{2 \times 8 + 1}{8} = \frac{17}{8}$. LCM of 8 and 3 is 24.

   $\frac{17}{8} = \frac{?}{24} = \frac{17 \times 3}{8 \times 3} = \frac{51}{24}$, and $\frac{2}{3} = \frac{?}{3} = \frac{2 \times 8}{3 \times 8} = \frac{16}{24}$.

   $\frac{51}{24} + \frac{16}{24} = \boxed{\frac{67}{24}}$.

   Also, $\frac{67}{24} = \frac{24 \times 2 + 19}{15}$

   $2\frac{1}{8} + \frac{2}{3} = \boxed{2\frac{19}{24}}$.

6. $\frac{4}{5} + 2\frac{1}{8}$

   $2\frac{1}{8} = \frac{2 \times 8 + 1}{8} = \frac{17}{8}$. LCM of 5 and 8 is 40.

   $\frac{4}{5} = \frac{?}{40} = \frac{4 \times 8}{5 \times 8} = \frac{32}{40}$, and $\frac{17}{8} = \frac{?}{40} = \frac{17 \times 5}{8 \times 5} = \frac{85}{40}$.

   $\frac{32}{40} + \frac{85}{40} = \boxed{\frac{117}{40}}$.

   Also, $\frac{117}{40} = \frac{2 \times 40 + 37}{40}$

   $\frac{4}{5} + 2\frac{1}{8} = \boxed{2\frac{37}{40}}$.

7. $3\frac{1}{4} - \frac{1}{8}$

   $3\frac{1}{4} = \frac{3 \times 4 + 1}{4} = \frac{13}{4}$. The LCM of 4 and 8 is 8.

   $\frac{1}{4} = \frac{?}{8} = \frac{1 \times 2}{4 \times 2} = \frac{2}{8}$ and $\frac{2}{8} - \frac{1}{8} = \boxed{\frac{1}{8}}$.

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

   $4\frac{4}{5} = \frac{4 \times 5 + 4}{5} = \frac{24}{5}$ and $2\frac{1}{3} = \frac{2 \times 3 + 1}{3} = \frac{7}{3}$. LCM of 5 and 3 is 15.

   $\frac{24}{5} = \frac{?}{15} = \frac{24 \times 3}{5 \times 3} = \frac{72}{15}$, and $\frac{7}{3} = \frac{?}{15} = \frac{7 \times 5}{3 \times 5} = \frac{35}{15}$.

   $\frac{72}{15} - \frac{35}{15} = \boxed{\frac{37}{15}}$.

   Also, $\frac{37}{15} = \frac{2 \times 15 + 7}{15}$

   $4\frac{4}{5} - 2\frac{1}{3} = \boxed{2\frac{7}{15}}$.

9. $8\frac{1}{6} - 2\frac{1}{3}$

   $8\frac{1}{6} = \frac{8 \times 6 + 1}{6} = \frac{49}{6}$ and $2\frac{1}{3} = \frac{2 \times 3 + 1}{3} = \frac{7}{3}$. The LCM of 6 and 3 is 6.

   $\frac{7}{3} = \frac{?}{6} = \frac{7 \times 2}{3 \times 2} = \frac{14}{6}$.

   $\frac{49}{6} - \frac{14}{6} = \boxed{\frac{35}{6}}$.

   Also, $\frac{35}{6} = \frac{5 \times 6 + 5}{6}$

   $8\frac{1}{6} - 2\frac{1}{3} = \boxed{5\frac{5}{6}}$.

10. $10\frac{1}{2} - 5\frac{5}{6}$

    $10\frac{1}{2} = \frac{10 \times 2 + 1}{2} = \frac{21}{2}$ and $5\frac{5}{6} = \frac{5 \times 6 + 5}{6} = \frac{35}{6}$. The LCM of 2 and 6 is 6.

    $\frac{21}{2} = \frac{?}{2} = \frac{21 \times 3}{2 \times 3} = \frac{63}{6}$.

    $\frac{63}{6} - \frac{35}{6} = \frac{28}{6} = \boxed{\frac{14}{3}}$.

    Also, $\frac{14}{3} = \frac{4 \times 3 + 2}{3}$

$10\frac{1}{2} - 5\frac{5}{6} = \boxed{4\frac{2}{3}}$.