

1. a) $\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$ b) $\frac{3}{5} + \frac{7}{10} = \frac{6+7}{10} = \frac{13}{10} = 1\frac{3}{10}$
c) $1\frac{1}{8} + 3\frac{4}{7} = \frac{9}{8} + \frac{25}{7} = \frac{63}{56} + \frac{200}{56} = \frac{263}{56} = 4\frac{41}{56}$ d) $\frac{7}{9} + 1\frac{2}{7} = \frac{7}{9} + \frac{9}{7} = \frac{49+81}{63} = \frac{130}{63} = 2\frac{4}{63}$
e) $\frac{4}{11} + \frac{9}{13} = \frac{52}{143} + \frac{99}{143} = \frac{151}{143} = 1\frac{8}{143}$ f) $3\frac{1}{6} + 5\frac{5}{8} = \frac{19}{6} + \frac{45}{8} = \frac{76+135}{24} = \frac{201}{24} = 8\frac{19}{24}$
2. a) $1\frac{1}{2} - \frac{1}{8} = \frac{3}{2} - \frac{1}{8} = \frac{12}{8} - \frac{1}{8} = \frac{11}{8} = 1\frac{3}{8}$ b) $2\frac{2}{7} - \frac{6}{11} = \frac{16}{7} - \frac{6}{11} = \frac{176-42}{77} = \frac{134}{77} = 1\frac{57}{77}$
c) $\frac{5}{9} - \frac{2}{5} = \frac{25-18}{45} = \frac{7}{45}$ d) $\frac{4}{5} - \frac{7}{9} = \frac{36}{45} - \frac{35}{45} = \frac{1}{45}$
e) $3\frac{1}{2} - 2\frac{3}{4} = \frac{7}{2} - \frac{11}{4} = \frac{14}{4} - \frac{11}{4} = \frac{3}{4}$ f) $4\frac{2}{3} - 3\frac{5}{9} = \frac{14}{3} - \frac{32}{9} = \frac{42-32}{9} = \frac{10}{9} = 1\frac{1}{9}$
3. a) $\frac{1}{2} + \frac{1}{3} + \frac{1}{6} = \frac{3}{6} + \frac{2}{6} + \frac{1}{6} = \frac{6}{6} = 1$
b) $1\frac{3}{4} + \frac{5}{6} - \frac{7}{8} = \frac{7}{4} + \frac{5}{6} - \frac{7}{8} = \frac{42+20-21}{24} = \frac{41}{24} = 1\frac{17}{24}$
c) $2\frac{1}{3} - \frac{5}{6} - \frac{7}{9} = \frac{7}{3} - \frac{5}{6} - \frac{7}{9} = \frac{42}{18} - \frac{15}{18} - \frac{14}{18} = \frac{13}{18}$
d) $\frac{10}{11} + 2\frac{3}{4} = \frac{10}{11} + \frac{11}{4} = \frac{40}{44} + \frac{121}{44} = \frac{161}{44} = 3\frac{29}{44}$
e) $6\frac{3}{8} - 3\frac{4}{7} = \frac{51}{8} - \frac{25}{7} = \frac{357}{56} - \frac{200}{56} = \frac{157}{56} = 2\frac{45}{56}$
f) $10\frac{11}{12} - 4\frac{5}{8} = \frac{131}{12} - \frac{37}{8} = \frac{262}{24} - \frac{111}{24} = \frac{151}{24} = 6\frac{7}{24}$