Lösungen zum Arbeitsblatt Addition/Subtraktion

4. a: $\frac{9}{8} = 1\frac{1}{8}$ b: $\frac{3*5+3*2}{20} = \frac{21}{20} = 1\frac{1}{20}$ c: $\frac{7*7-5*2}{28} = \frac{39}{28} = 1\frac{11}{28}$ d: $\frac{1*27+8*4}{27} = \frac{59}{27} = 2\frac{5}{27}$

e: $1 - \frac{19}{23} = \frac{4}{23}$ f: $25\frac{2}{4} - \frac{2}{3} = 25\frac{1}{2} - \frac{2}{3} = 25\frac{3}{6} - \frac{4}{6} = 24\frac{5}{6}$ g: $\frac{3}{10}$ h: $2\frac{17}{20}$

i: $\frac{1}{2}$ j: $\frac{3*3-2*4}{12} = \frac{1}{12}$ k: $\frac{5*2-3*3}{42} = \frac{1}{42}$ l: $\frac{30}{8} - 3\frac{1}{8} = -\left(3\frac{1}{8} - 2\frac{6}{8}\right) = -\frac{3}{8}$

5.

- $\frac{3}{4} - \frac{1}{3} = \frac{9}{12} - \frac{4}{12} = \frac{5}{12}$
- $\frac{5}{12} + \frac{13}{42} = \frac{5*7}{84} + \frac{13*2}{84} = \frac{61}{84}$
- $\frac{61}{84} - \frac{5}{84} = \frac{56}{84} = \frac{14}{21} = \frac{2}{3} = \frac{38}{57}$
- $\frac{38}{57} + \frac{57}{38} = \frac{38*2+57*3}{114} = \frac{247}{114} = \frac{13}{6} = 2\frac{1}{6}$ $oder$ $\frac{38}{57} + \frac{57}{38} = \frac{2}{3} + \frac{3}{2} = \frac{4}{6} + \frac{9}{6} = \frac{13}{6} = 2\frac{1}{6}$
- $2\frac{1}{6} - \frac{45}{22} = 2\frac{1}{6} - 2\frac{1}{22} = \frac{11}{66} - \frac{3}{66} = \frac{8}{66} = \frac{4}{33}$
- $\frac{4}{33} + \frac{24}{132} = \frac{4*4+24}{132} = \frac{40}{132} = \frac{10}{33}$ $oder$ $\frac{4}{33} + \frac{24}{132} = \frac{4}{33} + \frac{6}{33} = \frac{10}{33}$
- $\frac{10}{33} + 1\frac{8}{22} = \frac{20}{66} + 1\frac{24}{66} = 1\frac{44}{66} = 1\frac{4}{6} = 1\frac{2}{3} = \frac{5}{3}$ $oder$ $\frac{10}{33} + 1\frac{4}{11} = \frac{10}{33} + 1\frac{12}{33} = 1\frac{22}{33} = 1\frac{2}{3}$
- $\frac{5}{3} - \frac{11}{12} = \frac{20}{12} - \frac{11}{12} = \frac{9}{12} = \frac{3}{4}$

6. a: $\frac{3}{4}$ b: $\frac{3}{8}$ c: $\frac{3}{8}$ d: $\frac{1}{4}$ e: $\frac{2}{12} = \frac{1}{6}$ f: $\frac{19}{8} = 2\frac{3}{8}$ g: $\frac{5}{6}$ h: $\frac{1}{15}$ i: $3\frac{9}{10}$

7. a: $2\frac{3}{4}$ b: $\frac{17}{12} = 1\frac{5}{12}$ c: $\frac{99}{3} = 33$ d: $\frac{29}{6} = 4\frac{5}{6}$ e: $2\frac{9}{12} + 2 = 4\frac{3}{4}$ f: $5\frac{64}{234} = 5\frac{32}{117}$

g: $\frac{21}{4} = 5\frac{1}{4}$ h: $\frac{9}{15} + \frac{11}{15} = \frac{20}{15} = 1\frac{1}{3}$ i: $4\frac{4}{7}$

8. a: $\frac{4}{7} + \frac{3}{7} = \frac{7}{7} = 1$ b: $\frac{1}{3} + \frac{2}{3} = \frac{3}{3} = 1$ c: $\frac{5}{6} - \frac{40}{6} = -\frac{35}{6} = -5\frac{5}{6}$ d: $\frac{2}{3} - \frac{1}{4} = \frac{8}{12} - \frac{3}{12} = \frac{5}{12}$

e: $\frac{7}{8} + 4\frac{2}{5} = \frac{35}{40} + 4\frac{16}{40} = 4\frac{51}{40} = 5\frac{11}{40}$ f: $\frac{7}{11} - \frac{9}{22} = \frac{5}{22}$ g: $\frac{3}{2} - 1\frac{1}{3} = 1\frac{3}{6} - 1\frac{2}{6} = \frac{1}{6}$

h: $3\frac{2}{3} + 7\frac{1}{3} = 10\frac{3}{3} = 11$ i: : $2\frac{24}{72} - 2 = \frac{24}{72} = \frac{1}{3}$

9. mit Umkehraufgabe: a + b = c $\Leftrightarrow$ $a = c - b$ $bzw.$ $b = c - a$

$oder\ analog$: $a - b = c \Leftrightarrow a = c + b\ bzw.\ b = a - c$

a: $\frac{1}{3} - \frac{2}{6} = \frac{1}{3} - \frac{1}{3} = 0$ $also\ Platzhalte\ X = 0$

b: $\frac{7}{20} + \frac{4}{25} = \frac{35}{100} + \frac{16}{100} = \frac{51}{100}$ $also\ X = 100$

c: $\frac{3}{9} - \frac{18}{57} = \frac{1}{3} - \frac{6}{19} = \frac{19}{57} - \frac{18}{57} = \frac{1}{57}$ $also\ X = 57$

d: $3\frac{8}{21} - 2\frac{23}{42} = 3\frac{16}{42} - 2\frac{23}{42} = \frac{35}{42} = \frac{5}{6}$ $also\ X = 5$