

Pracovní list č. 1 (řešení)

$$(a) -\frac{1}{2} : \left(-1\frac{7}{16}\right) = -\frac{1}{2} \cdot \left(-\frac{16}{23}\right) = \frac{8}{23}$$

$$(b) 3\frac{6}{7} + \left(-1\frac{11}{13}\right) = \frac{27}{7} + \left(-\frac{24}{13}\right) = \frac{351 - 168}{91} = \frac{183}{91} = 2\frac{1}{91}$$

$$(c) \frac{5}{12} - 3\frac{7}{11} = \frac{5}{12} - \frac{40}{11} = \frac{55 - 480}{132} = -\frac{425}{132} = -3\frac{29}{132}$$

$$(d) -\frac{1}{14} - \left(-4\frac{13}{16}\right) = -\frac{1}{14} - \left(-\frac{77}{16}\right) = \frac{-8 + 539}{112} = \frac{531}{112} = 4\frac{83}{112}$$

$$(e) 4\frac{10}{13} : 2\frac{1}{2} = \frac{62}{13} \cdot \frac{2}{5} = \frac{124}{65} = 1\frac{59}{65}$$

$$(f) 2\frac{5}{9} : 4\frac{1}{2} = \frac{23}{9} \cdot \frac{2}{9} = \frac{46}{81}$$

$$(g) -4\frac{1}{7} - 2\frac{1}{3} = -\frac{29}{7} - \frac{7}{3} = \frac{-87 - 49}{21} = -\frac{136}{21} = -6\frac{10}{21}$$

$$(h) -\frac{5}{6} : 2\frac{2}{5} = -\frac{5}{6} \cdot \frac{5}{12} = -\frac{25}{72}$$

$$(i) -2\frac{7}{12} - 2\frac{5}{16} = -\frac{31}{12} - \frac{37}{16} = \frac{-124 - 111}{48} = -\frac{235}{48} = -4\frac{43}{48}$$

$$(j) 1\frac{7}{13} : \left(-1\frac{4}{9}\right) = \frac{20}{13} \cdot \left(-\frac{9}{13}\right) = -\frac{180}{169} = -1\frac{11}{169}$$

$$(k) -2\frac{10}{13} : 2\frac{1}{5} = -\frac{36}{13} \cdot \frac{5}{11} = -\frac{180}{143} = -1\frac{37}{143}$$

$$(l) -1\frac{5}{6} - \frac{7}{9} = -\frac{11}{6} - \frac{7}{9} = \frac{-33 - 14}{18} = -\frac{47}{18} = -2\frac{11}{18}$$

$$(m) 1\frac{1}{2} \cdot \left(-\frac{5}{14}\right) = \frac{3}{2} \cdot \left(-\frac{5}{14}\right) = -\frac{15}{28}$$

$$(n) 2\frac{3}{8} : 3\frac{3}{13} = \frac{19}{8} \cdot \frac{13}{42} = \frac{247}{336}$$

$$(o) -4\frac{4}{7} - \left(-4\frac{5}{16}\right) = -\frac{32}{7} - \left(-\frac{69}{16}\right) = \frac{-512 + 483}{112} = -\frac{29}{112}$$

$$(p) -3\frac{3}{16} + 1\frac{2}{3} = -\frac{51}{16} + \frac{5}{3} = \frac{-153 + 80}{48} = -\frac{73}{48} = -1\frac{25}{48}$$

Pracovní list č. 2 (řešení)

$$(a) 1\frac{11}{13} - \left(-4\frac{1}{2}\right) = \frac{24}{13} - \left(-\frac{9}{2}\right) = \frac{48 + 117}{26} = \frac{165}{26} = 6\frac{9}{26}$$

$$(b) -3\frac{5}{7} : 4\frac{3}{4} = -\frac{26}{7} \cdot \frac{4}{19} = -\frac{104}{133}$$

$$(c) 4\frac{1}{2} \cdot 1\frac{1}{8} = \frac{9}{2} \cdot \frac{9}{8} = \frac{81}{16} = 5\frac{1}{16}$$

$$(d) 4\frac{1}{2} \cdot \left(-3\frac{11}{15}\right) = \frac{9}{2} \cdot \left(-\frac{56}{15}\right) = -\frac{84}{5} = -16\frac{4}{5}$$

$$(e) -\frac{5}{8} - \frac{2}{7} = -\frac{5}{8} - \frac{2}{7} = \frac{-35 - 16}{56} = -\frac{51}{56}$$

$$(f) 3\frac{1}{5} \cdot \left(-1\frac{2}{7}\right) = \frac{16}{5} \cdot \left(-\frac{9}{7}\right) = -\frac{144}{35} = -4\frac{4}{35}$$

$$(g) -\frac{1}{12} + 3\frac{7}{11} = -\frac{1}{12} + \frac{40}{11} = \frac{-11 + 480}{132} = \frac{469}{132} = 3\frac{73}{132}$$

$$(h) \frac{7}{12} - \left(-4\frac{8}{15}\right) = \frac{7}{12} - \left(-\frac{68}{15}\right) = \frac{35 + 272}{60} = \frac{307}{20} = 15\frac{7}{20}$$

$$(i) -\frac{4}{11} \cdot 1\frac{1}{2} = -\frac{4}{11} \cdot \frac{3}{2} = -\frac{6}{11}$$

$$(j) -4\frac{5}{7} - 3\frac{2}{13} = -\frac{33}{7} - \frac{41}{13} = \frac{-429 - 287}{91} = -\frac{716}{91} = -7\frac{79}{91}$$

$$(k) -2\frac{1}{3} - 3\frac{3}{7} = -\frac{7}{3} - \frac{24}{7} = \frac{-49 - 72}{21} = -\frac{121}{21} = -5\frac{16}{21}$$

$$(l) -4\frac{8}{9} \cdot \left(-\frac{2}{5}\right) = -\frac{44}{9} \cdot \left(-\frac{2}{5}\right) = \frac{88}{45} = 1\frac{43}{45}$$

$$(m) -\frac{4}{9} - \left(-3\frac{2}{3}\right) = -\frac{4}{9} - \left(-\frac{11}{3}\right) = \frac{-4 + 33}{9} = \frac{29}{9} = 3\frac{2}{9}$$

$$(n) -3\frac{1}{12} : 2\frac{4}{5} = -\frac{37}{12} \cdot \frac{5}{14} = -\frac{185}{168} = -1\frac{17}{168}$$

$$(o) 3\frac{1}{3} : 2\frac{8}{9} = \frac{10}{3} \cdot \frac{9}{26} = \frac{15}{13} = 1\frac{2}{13}$$

$$(p) -\frac{1}{3} : \left(-2\frac{1}{2}\right) = -\frac{1}{3} \cdot \left(-\frac{2}{5}\right) = \frac{2}{15}$$

Pracovní list č. 3 (řešení)

$$(a) -2\frac{2}{3} + 2\frac{7}{10} = -\frac{8}{3} + \frac{27}{10} = \frac{-80 + 81}{30} = \frac{1}{30}$$

$$(b) -3\frac{1}{9} : 4\frac{1}{13} = -\frac{28}{9} \cdot \frac{13}{53} = -\frac{364}{477}$$

$$(c) -\frac{10}{11} - \left(-2\frac{3}{14}\right) = -\frac{10}{11} - \left(-\frac{31}{14}\right) = \frac{-140 + 341}{154} = \frac{201}{154} = 1\frac{47}{154}$$

$$(d) 2\frac{1}{12} + 4\frac{7}{8} = \frac{25}{12} + \frac{39}{8} = \frac{50 + 117}{24} = \frac{167}{24} = 6\frac{23}{24}$$

$$(e) 1\frac{9}{10} \cdot \left(-2\frac{4}{5}\right) = \frac{19}{10} \cdot \left(-\frac{14}{5}\right) = -\frac{133}{25} = -5\frac{8}{25}$$

$$(f) -2\frac{6}{11} : \left(-1\frac{4}{9}\right) = -\frac{28}{11} \cdot \left(-\frac{9}{13}\right) = \frac{252}{143} = 1\frac{109}{143}$$

$$(g) -\frac{8}{15} : \left(-3\frac{9}{13}\right) = -\frac{8}{15} \cdot \left(-\frac{13}{48}\right) = \frac{13}{90}$$

$$(h) -\frac{5}{12} - \left(-4\frac{2}{3}\right) = -\frac{5}{12} - \left(-\frac{14}{3}\right) = \frac{-5 + 56}{12} = \frac{51}{12} = 4\frac{3}{12}$$

$$(i) -1\frac{3}{8} : 3\frac{1}{3} = -\frac{11}{8} \cdot \frac{3}{10} = -\frac{33}{80}$$

$$(j) 2\frac{2}{3} \cdot 3\frac{3}{4} = \frac{8}{3} \cdot \frac{15}{4} = \frac{10}{1} = 10$$

$$(k) -\frac{1}{6} : 4\frac{1}{2} = -\frac{1}{6} \cdot \frac{2}{9} = -\frac{1}{27}$$

$$(l) -3\frac{2}{5} - 3\frac{1}{3} = -\frac{17}{5} - \frac{10}{3} = \frac{-51 - 50}{15} = -\frac{101}{15} = -6\frac{11}{15}$$

$$(m) 2\frac{9}{14} \cdot \frac{3}{5} = \frac{37}{14} \cdot \frac{3}{5} = \frac{111}{70} = 1\frac{41}{70}$$

$$(n) -2\frac{11}{15} - 3\frac{13}{14} = -\frac{41}{15} - \frac{55}{14} = \frac{-574 - 825}{210} = -\frac{1399}{210} = -6\frac{139}{210}$$

$$(o) -\frac{1}{7} - 1\frac{4}{5} = -\frac{1}{7} - \frac{9}{5} = \frac{-5 - 63}{35} = -\frac{68}{35} = -1\frac{33}{35}$$

$$(p) -3\frac{1}{2} - \left(-\frac{1}{16}\right) = -\frac{7}{2} - \left(-\frac{1}{16}\right) = \frac{-56 + 1}{16} = -\frac{55}{16} = -3\frac{7}{16}$$

Pracovní list č. 4 (řešení)

$$(a) -1\frac{3}{11} - \left(-4\frac{3}{4}\right) = -\frac{14}{11} - \left(-\frac{19}{4}\right) = \frac{-56 + 209}{44} = \frac{153}{44} = 3\frac{21}{44}$$

$$(b) -3\frac{2}{9} : 3\frac{5}{16} = -\frac{29}{9} \cdot \frac{16}{53} = -\frac{464}{477}$$

$$(c) -1\frac{1}{2} \cdot \left(-\frac{3}{5}\right) = -\frac{3}{2} \cdot \left(-\frac{3}{5}\right) = \frac{9}{10}$$

$$(d) 1\frac{3}{4} + 1\frac{13}{16} = \frac{7}{4} + \frac{29}{16} = \frac{28 + 29}{16} = \frac{57}{16} = 3\frac{9}{16}$$

$$(e) -1\frac{3}{10} : \left(-3\frac{4}{9}\right) = -\frac{13}{10} \cdot \left(-\frac{9}{31}\right) = \frac{117}{310}$$

$$(f) -2\frac{1}{5} \cdot 4\frac{7}{16} = -\frac{11}{5} \cdot \frac{71}{16} = -\frac{781}{80} = -9\frac{61}{80}$$

$$(g) 4\frac{6}{11} : \left(-3\frac{8}{9}\right) = \frac{50}{11} \cdot \left(-\frac{9}{35}\right) = -\frac{90}{77} = -1\frac{13}{77}$$

$$(h) 4\frac{3}{8} + \left(-3\frac{2}{15}\right) = \frac{35}{8} + \left(-\frac{47}{15}\right) = \frac{525 - 376}{120} = \frac{149}{120} = 1\frac{29}{120}$$

$$(i) 3\frac{1}{12} + \left(-3\frac{1}{10}\right) = \frac{37}{12} + \left(-\frac{31}{10}\right) = \frac{185 - 186}{60} = -\frac{1}{60}$$

$$(j) \frac{3}{10} - 2\frac{4}{5} = \frac{3}{10} - \frac{14}{5} = \frac{3 - 28}{10} = -\frac{25}{10} = -2\frac{1}{2}$$

$$(k) 2\frac{1}{6} - 1\frac{7}{12} = \frac{13}{6} - \frac{19}{12} = \frac{26 - 19}{12} = \frac{7}{12}$$

$$(l) -3\frac{1}{2} \cdot \frac{11}{16} = -\frac{7}{2} \cdot \frac{11}{16} = -\frac{77}{32} = -2\frac{13}{32}$$

$$(m) 2\frac{4}{13} + \left(-2\frac{7}{15}\right) = \frac{30}{13} + \left(-\frac{37}{15}\right) = \frac{450 - 481}{195} = -\frac{31}{195}$$

$$(n) 3\frac{1}{3} + \left(-2\frac{3}{4}\right) = \frac{10}{3} + \left(-\frac{11}{4}\right) = \frac{40 - 33}{12} = \frac{7}{12}$$

$$(o) -1\frac{3}{13} : 1\frac{2}{3} = -\frac{16}{13} \cdot \frac{3}{5} = -\frac{48}{65}$$

$$(p) 4\frac{1}{5} \cdot \left(-1\frac{11}{14}\right) = \frac{21}{5} \cdot \left(-\frac{25}{14}\right) = -\frac{15}{2} = -7\frac{1}{2}$$