

Lösung A1

a) $3 \cdot \sqrt{2} = \sqrt{3^2 \cdot 2} = \sqrt{18}$
 c) $6 \cdot \sqrt{10} = \sqrt{6^2 \cdot 10} = \sqrt{360}$
 e) $4 \cdot \sqrt{15} = \sqrt{4^2 \cdot 15} = \sqrt{240}$
 g) $9 \cdot \sqrt{3} = \sqrt{9^2 \cdot 3} = \sqrt{243}$
 i) $8 \cdot \sqrt{11} = \sqrt{8^2 \cdot 11} = \sqrt{704}$
 k) $0,6 \cdot \sqrt{10} = \sqrt{0,6^2 \cdot 10} = \sqrt{3,6}$

b) $2 \cdot \sqrt{5} = \sqrt{2^2 \cdot 5} = \sqrt{20}$
 d) $12 \cdot \sqrt{2} = \sqrt{12^2 \cdot 2} = \sqrt{288}$
 f) $11 \cdot \sqrt{6} = \sqrt{11^2 \cdot 6} = \sqrt{726}$
 h) $15 \cdot \sqrt{7} = \sqrt{15^2 \cdot 7} = \sqrt{1575}$
 j) $5 \cdot \sqrt{5} = \sqrt{5^2 \cdot 5} = \sqrt{125}$
 l) $1,2 \cdot \sqrt{5} = \sqrt{1,2^2 \cdot 5} = \sqrt{7,2}$

Lösung A2

a) $5 \cdot \sqrt{\frac{3}{10}} = \sqrt{25 \cdot \frac{3}{10}} = \sqrt{\frac{15}{2}}$
 c) $4 \cdot \sqrt{\frac{7}{8}} = \sqrt{16 \cdot \frac{7}{8}} = \sqrt{14}$
 e) $\frac{14}{5} \cdot \sqrt{\frac{75}{98}} = \sqrt{\frac{14}{5} \cdot \frac{14}{5} \cdot \frac{75}{98}} = \sqrt{6}$
 g) $\frac{4}{3} \cdot \sqrt{45} = \sqrt{\frac{16}{9} \cdot 45} = \sqrt{80}$
 i) $\frac{11}{12} \cdot \sqrt{\frac{12}{11}} = \sqrt{\frac{11}{12} \cdot \frac{11}{12} \cdot \frac{12}{11}} = \sqrt{\frac{11}{12}}$
 k) $3\frac{1}{2} \cdot \sqrt{\frac{2}{7}} = \sqrt{\frac{49}{4} \cdot \frac{2}{7}} = \sqrt{\frac{7}{2}}$

b) $\frac{3}{4} \cdot \sqrt{\frac{8}{15}} = \sqrt{\frac{9}{16} \cdot \frac{8}{15}} = \sqrt{\frac{3}{5}}$
 d) $8 \cdot \sqrt{\frac{5}{12}} = \sqrt{64 \cdot \frac{5}{12}} = \sqrt{\frac{80}{3}}$
 f) $\frac{2}{3} \cdot \sqrt{\frac{27}{28}} = \sqrt{\frac{4}{9} \cdot \frac{27}{28}} = \sqrt{\frac{3}{7}}$
 h) $\frac{5}{6} \cdot \sqrt{18} = \sqrt{\frac{25}{36} \cdot 18} = \sqrt{\frac{25}{2}}$
 j) $\frac{7}{8} \cdot \sqrt{\frac{8}{7}} = \sqrt{\frac{7}{8} \cdot \frac{7}{8} \cdot \frac{8}{7}} = \sqrt{\frac{7}{8}}$
 l) $\frac{5}{13} \cdot \sqrt{\frac{91}{125}} = \sqrt{\frac{5}{13} \cdot \frac{5}{13} \cdot \frac{91}{125}} = \sqrt{\frac{7}{65}}$

Lösung A3

a) $-8 \cdot \sqrt{5} = -\sqrt{8^2 \cdot 5} = -\sqrt{320}$
 c) $-\frac{3}{4} \cdot \sqrt{\frac{32}{45}} = -\sqrt{\frac{9}{16} \cdot \frac{32}{45}} = -\sqrt{\frac{2}{5}}$
 e) $-0,3 \cdot \sqrt{0,5} = -\sqrt{0,09 \cdot 0,5} = -\sqrt{0,045}$
 g) $-3\frac{1}{3} \cdot \sqrt{\frac{3}{10}} = -\sqrt{\frac{100}{9} \cdot \frac{3}{10}} = -\sqrt{\frac{10}{3}}$
 i) $-\frac{3}{5} \cdot \sqrt{5} = -\sqrt{\frac{9}{25} \cdot 5} = -\sqrt{\frac{9}{5}}$

b) $-\frac{1}{2} \cdot \sqrt{8} = -\sqrt{\frac{1}{4} \cdot 8} = -\sqrt{2}$
 d) $-\frac{3}{8} \cdot \sqrt{128} = -\sqrt{\frac{9}{64} \cdot 128} = -\sqrt{18}$
 f) $-\frac{3}{10} \cdot \sqrt{3\frac{1}{3}} = -\sqrt{\frac{9}{100} \cdot \frac{10}{3}} = -\sqrt{\frac{9}{10}}$
 h) $-5 \cdot \sqrt{\frac{3}{5}} = -\sqrt{25 \cdot \frac{3}{5}} = -\sqrt{15}$
 k) $-\frac{4}{5} \cdot \sqrt{75} = -\sqrt{\frac{16}{25} \cdot 75} = -\sqrt{48}$