

## Selbsttest Bruchrechnung 6

### Aufgaben

$$\text{a) } \frac{\left(\frac{-5}{-8} - \frac{-5}{-12}\right) \cdot \frac{-3}{-16}}{\left(\frac{8}{-15} + \frac{3}{-10}\right) \cdot \frac{-2}{13}}$$

$$\text{b) } \frac{\left(\frac{-11}{12} + \frac{11}{9} - \frac{6}{-7} + \frac{-13}{-11}\right) \cdot \frac{14}{5}}{\left(\frac{3}{-10} + \frac{5}{16} - \frac{-8}{9} - \frac{3}{-16}\right) \cdot \frac{-1}{4}}$$

$$\text{c) } \frac{\left(\frac{1}{-14} - \frac{10}{-11} + \frac{-5}{6}\right) \cdot \frac{-10}{-13}}{\left(\frac{-16}{9} + \frac{-13}{12} - \frac{-1}{9}\right) \cdot \frac{-15}{-14}}$$

$$\text{d) } \frac{\left(\frac{-11}{3} + \frac{4}{3} + \frac{5}{14} - \frac{-5}{16}\right) \cdot \frac{11}{-13}}{\left(\frac{-1}{-13} + \frac{-5}{-2} + \frac{-13}{-7} + \frac{-9}{16}\right) \cdot \frac{-1}{-13}}$$

$$\text{e) } \frac{\left(\frac{-14}{-9} - \frac{3}{-2} + \frac{-15}{-14} + \frac{-1}{-15}\right) \cdot \frac{-11}{-4}}{\left(\frac{-1}{-9} - \frac{-2}{-3} - \frac{-15}{4} - \frac{-8}{9}\right) \cdot \frac{14}{11}}$$

$$\text{f) } \frac{\left(\frac{-5}{-3} + \frac{13}{8} + \frac{11}{7}\right) \cdot \frac{1}{-11}}{\left(\frac{-7}{-2} - \frac{-5}{11} - \frac{-11}{-16}\right) \cdot \frac{13}{-6}}$$

$$\text{g) } \frac{\left(\frac{5}{-13} + \frac{2}{9} - \frac{13}{16} - \frac{13}{-2}\right) \cdot \frac{14}{-5}}{\left(\frac{-3}{8} + \frac{14}{-15} - \frac{8}{-15} - \frac{-7}{9}\right) \cdot \frac{-9}{14}}$$

$$\text{h) } \frac{\left(\frac{-1}{8} - \frac{-13}{-15} + \frac{-8}{-13}\right) \cdot \frac{-6}{11}}{\left(\frac{-3}{-4} - \frac{-9}{5} - \frac{7}{6}\right) \cdot \frac{-1}{11}}$$

$$\text{i) } \frac{\left(\frac{-7}{-13} + \frac{11}{-14}\right) \cdot \frac{-5}{-6}}{\left(\frac{-5}{8} + \frac{11}{-5}\right) \cdot \frac{-3}{-10}}$$

$$\text{j) } \frac{\left(\frac{-5}{-16} + \frac{5}{16}\right) \cdot \frac{-8}{15}}{\left(\frac{-16}{3} - \frac{-12}{-13}\right) \cdot \frac{-3}{-16}}$$

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### Lösungen

- a)  $\frac{\left(\frac{-5}{-8} - \frac{-5}{-12}\right) \cdot \frac{-3}{-16}}{\left(\frac{8}{-15} + \frac{3}{-10}\right) \cdot \frac{-2}{13}}$  L:  $\frac{39}{128}$  ¶
- b)  $\frac{\left(\frac{-11}{12} + \frac{11}{9} - \frac{6}{-7} + \frac{-13}{-11}\right) \cdot \frac{14}{5}}{\left(\frac{3}{-10} + \frac{5}{16} - \frac{8}{9} - \frac{3}{-16}\right) \cdot \frac{-1}{4}}$  L:  $-\frac{12998}{539}$  ¶
- c)  $\frac{\left(\frac{1}{-14} - \frac{10}{-11} + \frac{-5}{6}\right) \cdot \frac{-10}{-13}}{\left(\frac{-16}{9} + \frac{-13}{12} - \frac{-1}{9}\right) \cdot \frac{-15}{-14}}$  L:  $-\frac{16}{14157}$  ¶
- d)  $\frac{\left(\frac{-11}{3} + \frac{4}{3} + \frac{5}{14} - \frac{-5}{16}\right) \cdot \frac{11}{-13}}{\left(\frac{1}{-13} + \frac{-5}{-2} + \frac{-13}{-7} + \frac{-9}{16}\right) \cdot \frac{-1}{-13}}$  L:  $\frac{79937}{16911}$  ¶
- e)  $\frac{\left(\frac{-14}{-9} - \frac{3}{-2} + \frac{-15}{-14} + \frac{-1}{-15}\right) \cdot \frac{-11}{-4}}{\left(\frac{-1}{-9} - \frac{-2}{-3} - \frac{-15}{4} - \frac{-8}{9}\right) \cdot \frac{14}{11}}$  L:  $\frac{41261}{72030}$  ¶
- f)  $\frac{\left(\frac{-5}{-3} + \frac{13}{8} + \frac{11}{7}\right) \cdot \frac{1}{-11}}{\left(\frac{-7}{-2} - \frac{-5}{11} - \frac{-11}{-16}\right) \cdot \frac{13}{-6}}$  L:  $\frac{3268}{52325}$  ¶
- g)  $\frac{\left(\frac{5}{-13} + \frac{2}{9} - \frac{13}{16} - \frac{13}{-2}\right) \cdot \frac{14}{-5}}{\left(\frac{-3}{8} + \frac{14}{-15} - \frac{8}{-15} - \frac{-7}{9}\right) \cdot \frac{-9}{14}}$  L:  $\frac{1013614}{117}$  ¶
- h)  $\frac{\left(\frac{-1}{8} - \frac{-13}{-15} + \frac{-8}{-13}\right) \cdot \frac{-6}{11}}{\left(\frac{-3}{-4} - \frac{-9}{5} - \frac{7}{6}\right) \cdot \frac{-1}{11}}$  L:  $\frac{1761}{91}$  ¶
- i)  $\frac{\left(\frac{-7}{-13} + \frac{11}{-14}\right) \cdot \frac{-5}{-6}}{\left(\frac{-5}{8} + \frac{11}{-5}\right) \cdot \frac{-3}{-10}}$  L:  $\frac{2500}{5733}$  ¶
- j)  $\frac{\left(\frac{-5}{-16} + \frac{5}{16}\right) \cdot \frac{-8}{15}}{\left(\frac{-16}{3} - \frac{-12}{-13}\right) \cdot \frac{3}{-16}}$  L:  $-\frac{52}{183}$  ¶