

Lösungen:

		Punkte
1	Bitte berechnen Sie a) $\frac{\frac{9}{-4} * \frac{-7}{-6} * \frac{3}{-4} * \frac{-5}{-3} * \frac{8}{9} * \frac{1}{6} * \frac{2}{3} * \frac{-4}{-7}}{\frac{1}{-10} * \frac{-10}{9} * \frac{5}{3} * \frac{-9}{-5} * \frac{-1}{6} * \frac{1}{8} * \frac{7}{2} * \frac{5}{4}}$ L: $-\frac{128}{21}$ b) $\frac{(\frac{-7}{5} - \frac{-2}{-7}) * \frac{-7}{-8}}{(-\frac{1}{2} - \frac{-2}{-5}) * \frac{8}{-3}}$ L: $-\frac{59}{96}$ c) $\frac{\frac{8}{-9} * \frac{8}{-3} * \frac{5}{8} * \frac{-1}{6}}{\frac{-7}{6} * \frac{5}{-2} * \frac{2}{9} * \frac{7}{-8}}$ L: $\frac{64}{147}$ d) $\frac{(-\frac{7}{-10} + \frac{3}{10} - \frac{5}{7}) * (\frac{-1}{10} + \frac{-9}{-5} - \frac{-9}{2})}{(\frac{1}{-7} - \frac{9}{-10} - \frac{-1}{-6}) * (-\frac{7}{-10} + \frac{-9}{-10} - \frac{4}{-5})}$ L: 3	8
2	Bitte kürzen Sie soweit wie möglich a) $\frac{9cij^2n^2r^2 + n^2r^2v^2}{ai^2kn^2r^2 - 8ajn^2r^2x - 10h^2n^2r^2z}$ L: $\frac{9cij^2 + v^2}{ai^2k - 8ajx - 10h^2z} [n^2r^2]$ b) $\frac{-9k^2s + 9c^2st + 54s}{99d^2esv + 54qst^2}$ L: $\frac{-k^2 + c^2t + 6}{11d^2ev + 6qt^2} [9s]$ c) $\frac{-12a^2n^2rtv + 4a^2n^2}{28a^2n^2u^2 - 20a^2n^2}$ L: $\frac{-3rtv + 1}{7u^2 - 5} [4a^2n^2]$	6
3	Bitte berechnen Sie a) $\frac{-5o-3}{3s+8} + \frac{5in+9bj}{-3f+11}$ L: $\frac{15fo-55o+9f-33+15ins+27bjs+40in+72bj}{-9fs+33s-24f+88}$ b) $\frac{12j+5mr}{5tu-2} - \frac{-3fx+2}{-6pz-5cu}$ L: $\frac{-72jpz-60cju-30mprz-25cmru+15ftux-10tu-6fx+4}{-30ptuz-25ctu^2+12pz+10cu}$ c) $\frac{-xy-1}{-4e-9} - \frac{7gx+12z}{6x+5}$ L: $\frac{-6x^2y-5xy-6x-5+28egx+48ez+63gx+108z}{-24ex-20e-54x-45}$	6