

Lösungen:

		Punkte
1	Bitte berechnen Sie, mit Lösungsweg a) $\frac{\left(-\frac{5}{8} - \frac{9}{2}\right) \cdot \left(-\frac{1}{-6} - \frac{-7}{-2}\right)}{\left(\frac{6}{5} + \frac{-5}{4}\right) \cdot \left(\frac{5}{-4} + \frac{3}{8}\right)} \quad \quad \text{L:} \quad \frac{8200}{21}$ b) $\frac{\frac{9}{-4} \cdot \frac{-3}{-10} \cdot \frac{-4}{-5} \cdot \frac{2}{-5} \cdot \frac{-7}{-6} \cdot \frac{-1}{8} \cdot \frac{-5}{-7} \cdot \frac{5}{-2}}{\frac{6}{-7} \cdot \frac{5}{3} \cdot \frac{-3}{10} \cdot \frac{9}{-4} \cdot \frac{-5}{-9} \cdot \frac{-7}{-3} \cdot \frac{2}{3} \cdot \frac{-8}{-3}} \quad \quad \text{L:} \quad -\frac{81}{3200}$ c) $\frac{\left(-\frac{-1}{4} + \frac{9}{8} + \frac{-3}{-8} + \frac{-7}{3}\right) \cdot \frac{-3}{10}}{\left(-\frac{2}{5} - \frac{-1}{4} + \frac{1}{6} + \frac{3}{-2}\right) \cdot \frac{3}{10}} \quad \quad \text{L:} \quad -\frac{65}{89}$	6
2	Bitte kürzen Sie: a) $\frac{21d^2pr^2uv - 30uv}{-15buv - 24uv}$ L : $\frac{21d^2pr^2uv - 30uv}{-15buv - 24uv} = \frac{7d^2pr^2 - 10}{-5b - 8} [3uv]$ b) $\frac{c^2f^2pu^2x^2y^2 + 3c^2f^2g^2x^2 - 12bc^2f^2x^2}{-7c^2f^2r^2s^2x^2 - 12a^2c^2f^2op^2x^2}$ L : $\frac{c^2f^2pu^2x^2y^2 + 3c^2f^2g^2x^2 - 12bc^2f^2x^2}{-7c^2f^2r^2s^2x^2 - 12a^2c^2f^2op^2x^2} = \frac{pu^2y^2 + 3g^2 - 12b}{-7r^2s^2 - 12a^2op^2} [c^2f^2x^2]$ c) $\frac{-50io^2 - 40ijn^2 + 30i}{-80b^2in^2z + 70b^2iq^2 + 90iq^2}$ L : $\frac{-50io^2 - 40ijn^2 + 30i}{-80b^2in^2z + 70b^2iq^2 + 90iq^2} = \frac{-5o^2 - 4jn^2 + 3}{-8b^2n^2z + 7b^2q^2 + 9q^2} [10i]$	6

3	Bitte berechnen Sie a) $\frac{-1,7c - 3,8}{-7,4h + 11,8} + \frac{2,6b - 10,4v}{-11,4s - 2,5g}$ L : $\frac{19,38cs + 4,25cg + 43,32s + 9,5g - 19,24bh + 76,96hv + 30,68b - 122,72v}{84,36hs + 18,5gh - 134,52s - 29,5g}$ b) $\frac{4f + 5w}{m + 6} - \frac{3h + 4}{5m - 2}$ L : $\frac{4f + 5w}{m + 6} - \frac{3h + 4}{5m - 2} = \frac{20fm - 8f + 25mw - 10w - 3hm - 4m - 18h - 24}{5m^2 + 28m - 12}$ c) $\frac{-3v - 2r}{7t - 3r} + \frac{-3v - 8q}{-2e + 1}$ L : $\frac{-3v - 2r}{7t - 3r} + \frac{-3v - 8q}{-2e + 1} = \frac{6ev - 3v + 4er - 2r - 21tv - 56qt + 9rv + 24qr}{-14et + 7t + 6er - 3r}$	6
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