

Lösungen:

1	<p>Bitte berechnen Sie</p> <p>a)</p> $\frac{-5,1w + 2y}{6,5f + 1,8} + \frac{9,9e + 9,2p}{-3,5f + 11,3}$ <p>L :</p> $\frac{17,85fw - 57,63w - 7fy + 22,6y + 64,35ef + 59,8fp + 17,82e + 16,56p}{-22,75f^2 + 67,15f + 20,34}$ <p>b)</p> $\frac{3,5u + 7,2}{-3,2v - 7,7} - \frac{1,1v + 4,4}{6,1u + 7,3}$ <p>L :</p> $\frac{86,44 + 21,35u^2 + 69,47u + 3,52v^2 + 22,55v}{-19,52uv - 23,36v - 46,97u - 56,21}$ <p>c)</p> $\frac{-10,9u + 5,8}{-1,7v - 5,1u} + \frac{6,3v + 4,1}{1,9v + 6,7}$ <p>L :</p> $\frac{-52,84uv - 93,94u + 4,05v + 38,86 - 10,71v^2}{-3,23v^2 - 11,39v - 9,69uv - 34,17u}$ <p>d)</p> $\frac{-5x^2 - 3o}{3c - 8} - \frac{7k + 9}{w + 6s^2}$ <p>L :</p> $\frac{-5wx^2 - 30s^2x^2 - 3ow - 18os^2 - 21ck - 27c + 56k + 72}{3cw + 18cs^2 - 8w - 48s^2}$ <p>e)</p> $\frac{-2s^2 + 3s}{-9s^2 + r^2} + \frac{2r + 3s}{-2r^2 - r}$ <p>L :</p> $\frac{-16rs^2 - 3r^2s + 4r^2s^2 - 3rs - 27s^3 + 2r^3}{18r^2s^2 + 9rs^2 - 2r^4 - r^3}$
2	<p>Bitte berechnen Sie mit Lösungsweg und ohne Taschenrechner:</p> <p>a) $\frac{3}{8} + \frac{1}{9} - \frac{5}{-3} + \frac{-5}{6}$ L: $\frac{95}{72}$</p> <p>b) $-\frac{7}{10} + \frac{-1}{-2} + \frac{-1}{6} - \frac{7}{8}$ L: $-\frac{149}{120}$</p> <p>c) $-\frac{-7}{6} - \frac{-3}{4} - \frac{-1}{9} - \frac{1}{3}$ L: $\frac{61}{36}$</p> <p>d) $\frac{6}{7} \cdot \frac{-1}{6}$ L: $-\frac{36}{7}$</p>

3	Bitte berechnen Sie mit Lösungsweg und ohne Taschenrechner:	
a)	$\frac{\left(-\frac{9}{-2} - \frac{3}{-8} - \frac{-9}{10} - \frac{-1}{4}\right) \cdot \frac{-4}{-7}}{\left(-\frac{-7}{-6} - \frac{-3}{-10} - \frac{7}{-8} - \frac{-1}{8}\right) \cdot \frac{1}{7}}$	L: $-\frac{723}{14}$
b)	$\frac{\left(\frac{-7}{-2} - \frac{5}{8}\right) \cdot \frac{-5}{-6}}{\left(-\frac{-7}{2} + \frac{8}{7}\right) \cdot \frac{7}{-8}}$	L: $-\frac{23}{39}$
c)	$\frac{\left(\frac{-3}{-10} + \frac{-2}{3} - \frac{4}{-9}\right) \cdot \left(-\frac{5}{-9} - \frac{4}{5} + \frac{-2}{-9}\right)}{\left(-\frac{9}{-2} - \frac{8}{-9} - \frac{1}{6}\right) \cdot \left(-\frac{-7}{6} + \frac{-10}{-3} - \frac{-7}{2}\right)}$	L: $\frac{1}{3600}$
d)	$\frac{\left(\frac{-9}{-10} - \frac{1}{-6} + \frac{-5}{6}\right) \cdot \left(\frac{-4}{5} - \frac{-7}{10} + \frac{-10}{-7}\right)}{\left(\frac{-5}{4} + \frac{2}{3} - \frac{7}{6}\right) \cdot \left(-\frac{10}{7} + \frac{-5}{-4} + \frac{-1}{6}\right)}$	L: $\frac{372}{725}$
e)	$\frac{\frac{-2}{9} \cdot \frac{9}{-10} \cdot \frac{-5}{-6} \cdot \frac{8}{-3}}{\frac{-3}{2} \cdot \frac{-1}{-5} \cdot \frac{-8}{9} \cdot \frac{-4}{3}}$	L: $\frac{5}{4}$
f)	$\frac{\frac{5}{4} \cdot \frac{9}{4} \cdot \frac{-2}{-3} \cdot \frac{7}{-8} \cdot \frac{-7}{-2} \cdot \frac{-7}{-4} \cdot \frac{-1}{10} \cdot \frac{5}{-3}}{\frac{1}{2} \cdot \frac{-5}{-4} \cdot \frac{-5}{3} \cdot \frac{-1}{2} \cdot \frac{-2}{-9} \cdot \frac{-7}{-8} \cdot \frac{3}{2} \cdot \frac{9}{2}}$	L: $-\frac{49}{20}$