

Lösungen:

<p><b>1</b></p>	<p>Bitte berechnen Sie</p> <p>a) <math>(9,9z + 4)(-9,9z - 6,7)(-6,3g - 7,3)</math></p> <p>L: <math>617,463gz^2 + 715,473z^2 + 667,359gz + 773,289z + 168,84g + 195,64</math></p> <p>b) <math>(6,2p + 2,7n)(-9,3n - 5,3)(-9,6n - 2,7)</math></p> <p>L: <math>553,536n^2p + 471,138np + 88,722p + 241,056n^3 + 205,173n^2 + 38,637n</math></p> <p>c) <math>(4,6c + 5,6)(-5,2c - 1)</math></p> <p>L: <math>-23,92c^2 - 33,72c - 5,6</math></p> <p>d) <math>(-4,1k + 6t)(-8y - 10)</math></p> <p>L: <math>32,8ky + 41k - 48ty - 60t</math></p>
<p><b>2</b></p>	<p>Bitte berechnen Sie</p> <p>a)</p> $\frac{\left(-\frac{2}{5} - \frac{1}{10} + \frac{-3}{-10}\right) * \left(\frac{1}{-6} - \frac{-7}{6} - \frac{-9}{4}\right)}{\left(\frac{-1}{6} - \frac{7}{5} - \frac{-5}{9}\right) * \left(\frac{9}{-8} + \frac{4}{-9} - \frac{-3}{8}\right)} \quad \text{L:} \quad -\frac{162}{301}$ <p>b)</p> $\frac{\frac{7}{6} * \frac{7}{6} * \frac{-1}{-6} * \frac{-9}{10} * \frac{1}{-8} * \frac{-1}{2}}{\frac{-5}{9} * \frac{7}{6} * \frac{-5}{-4} * \frac{6}{-7} * \frac{-3}{-5} * \frac{9}{-4}} \quad \text{L:} \quad \frac{49}{3600}$ <p>c)</p> $\frac{\left(\frac{9}{-4} - \frac{-7}{2}\right) * \frac{-5}{-6}}{\left(\frac{-6}{-7} + \frac{-3}{7}\right) * \frac{-3}{-2}} \quad \text{L:} \quad -\frac{175}{324}$
<p><b>3</b></p>	<p>Bitte berechnen Sie</p> <p>a)</p> $\frac{1,1z + 9,7}{-5,4z - 2,5} - \frac{8,4z - 7,7}{-2,2z - 9,6}$ <p>L:</p> $\frac{1,1z + 9,7}{-5,4z - 2,5} - \frac{8,4z - 7,7}{-2,2z - 9,6} = \frac{42,94z^2 - 52,48z - 112,37}{11,88z^2 + 57,34z + 24}$ <p>b)</p> $\frac{8,6u - 4,8z}{-8,9z - 1,1} + \frac{7,5m - 6,1}{8,4m + 9,9u}$ <p>L:</p> $\frac{8,6u - 4,8z}{-8,9z - 1,1} + \frac{7,5m - 6,1}{8,4m + 9,9u} = \frac{-107,07mz + 72,24mu + 85,14u^2 - 47,52uz + 54,29z - 8,25m + 6,71}{-74,76mz - 88,11uz - 9,24m - 10,89u}$

	<p>c)</p> $\frac{7,7c + 3,4}{-8,2m - 1,9f} - \frac{-7,7d - 5}{-6,8i - 4,5w}$ <p>L :</p> $\frac{7,7c + 3,4}{-8,2m - 1,9f} - \frac{-7,7d - 5}{-6,8i - 4,5w} = \frac{-52,36ci - 34,65cw - 23,12i - 15,3w - 63,14dm - 41m - 14,63df - 9,5f}{55,76im + 36,9mw + 12,92fi + 8,55fw}$
<p>4</p>	<p>Bitte kürzen Sie</p> <p>a)</p> $\frac{4gs+3g}{-gs+2g} \quad \text{L:} \quad \frac{4gs+3g}{-gs+2g} = \frac{4s+3}{-s+2} \quad [g]$ <p>b)</p> $\frac{3wy+3sy}{6ry+15uy-18fuy} \quad \text{L:} \quad \frac{3wy+3sy}{6ry+15uy-18fuy} = \frac{w+s}{2r+5u-6fu} \quad [3y]$ <p>c)</p> $\frac{-7awxz-35wz}{7pwz+7dw^2z-21wz} \quad \text{L:} \quad \frac{-7awxz-35wz}{7pwz+7dw^2z-21wz} = \frac{-ax-5}{p+dw-3} \quad [7wz]$