

Lösungen:

		Punkte
1	<p>Bitte nennen Sie die binomischen Formeln</p> <p>1) $(a+b)^2 = a^2 + 2ab + b^2$ 2) $(a - b)^2 = a^2 - 2ab + b^2$ 3) $(a+b)(a-b) = a^2 - b^2$</p>	3
2	<p>Bitte berechnen Sie</p> <p>a)</p> $\frac{8,3y^2 + 1,3}{-2,9y + 4,4} + \frac{-2,9j^2 - 4,6}{-3,6z^2 - 1,1}$ <p style="text-align: center;">L:</p> $\frac{8,3y^2 + 1,3}{-2,9y + 4,4} + \frac{-2,9j^2 - 4,6}{-3,6z^2 - 1,1} = \frac{-21,67 - 29,88y^2z^2 - 9,13y^2 - 4,68z^2 + 8,41j^2y + 13,34y - 12,76j^2}{10,44yz^2 + 3,19y - 15,84z^2 - 4,84}$ <p>b)</p> $\frac{9,6r - 7,6}{-8,6s - 5,8} - \frac{7,7s - 9,6r}{4s - 6,9r}$ <p style="text-align: center;">L:</p> $\frac{9,6r - 7,6}{-8,6s - 5,8} - \frac{7,7s - 9,6r}{4s - 6,9r} = \frac{-44,16rs + 14,26s - 3,24r - 66,24r^2 + 66,22s^2}{-34,4s^2 + 59,34rs - 23,2s + 40,02r}$	4
3	<p>Bitte berechnen Sie</p> <p>a)</p> $\left(\frac{4}{5} : \left(\frac{5}{11} : \frac{2}{9} \right) \right) : \frac{1}{2} \quad \quad L: \frac{176}{225}$ <p>b)</p> $\frac{5}{2} : \left(\frac{1}{2} : \left(\frac{1}{5} : \frac{5}{6} \right) \right) \quad \quad L: \frac{6}{5}$ <p>c)</p> $\frac{10}{11} : \left(\left(\frac{1}{2} : \frac{2}{3} \right) : \frac{10}{3} \right) \quad \quad L: \frac{400}{99}$	6
4	<p>Bitte berechnen Sie</p> <p>a)</p> $\frac{\left(\frac{-9}{10} + \frac{11}{-10} + \frac{9}{8} \right) * \left(\frac{-11}{-10} - \frac{5}{2} + \frac{-9}{-2} \right)}{\left(-\frac{3}{-4} + \frac{-3}{-8} + \frac{-7}{-4} \right) * \left(-\frac{-1}{-6} - \frac{-7}{12} - \frac{3}{-4} \right)} \quad L: -\frac{27}{115}$	2
5	<p>Bitte berechnen Sie</p> <p>a) $(-5,37b + 7,24)^2$ L: $28,8369b^2 - 77,7576b + 52,4176$ b) $(6,85o + 9,65)^2$ L: $46,9225o^2 + 132,205o + 93,1225$</p>	4
6	<p>Bitte erkennen Sie die ursprüngliche binomische Formel</p> <p>a) $13,6161v^2 - 32,3761$ L: $(3,69v + 5,69)(3,69v - 5,69)$ b) $6,3504n^2 - 33,516n + 44,2225$ L: $(2,52n - 6,65)^2$</p>	4