

Lösungen:

1	<p>Bitte bestimmen Sie die Unbekannten in den Gleichungssystemen</p> <p>a)</p> $-\frac{11}{3}t - \frac{12}{7}v = \frac{59}{4}$ $-\frac{15}{2}t + 4v = -\frac{179}{8}$ <p style="text-align: center;">L :</p> $t = -\frac{3}{4};$ $v = -7;$ <p>b)</p> $-2z + \frac{1}{2}c = \frac{157}{60}$ $-\frac{4}{3}z - \frac{1}{11}c = \frac{739}{330}$ <p style="text-align: center;">L :</p> $z = -\frac{8}{5};$ $c = -\frac{7}{6}$
2	<p>Bitte bestimmen Sie die genannten Unbekannten</p> <p>a)</p> $\frac{2aj - 1,4}{-g - 3,5dg} + 7,8e = 6,3s \quad [jagd]$ <p style="text-align: center;">L :</p> $j = \frac{-6,3gs - 22,05dgs + 7,8eg + 27,3deg + 1,4}{2a}$ $a = \frac{-6,3gs - 22,05dgs + 7,8eg + 27,3deg + 1,4}{2j}$ $g = \frac{-2aj + 1,4}{6,3s + 22,05ds - 7,8e - 27,3de}$ $d = \frac{-6,3gs + 7,8eg - 2aj + 1,4}{22,05gs - 27,3eg}$ <p>b)</p> $\frac{-2,4k - 3,4ch}{-1,1ac - 4,4} + 5,8b = -6,4g \quad [kcha]$ <p style="text-align: center;">L :</p> $k = \frac{7,04acg + 28,16g + 6,38abc + 25,52b + 3,4ch}{-2,4}$ $c = \frac{28,16g + 25,52b + 2,4k}{-7,04ag - 6,38ab - 3,4h}$ $h = \frac{7,04acg + 28,16g + 6,38abc + 25,52b + 2,4k}{-3,4c}$ $a = \frac{28,16g + 25,52b + 2,4k + 3,4ch}{-7,04cg - 6,38bc}$

	<p>c)</p> $\frac{-4,1hr + 2,3g}{-7,5h - 2,7b} + 5,9v = 4,6g \quad [rhgb]$ <p>L :</p> $r = \frac{-34,5gh - 12,42bg + 44,25hv + 15,93bv - 2,3g}{-4,1h}$ $h = \frac{-12,42bg + 15,93bv - 2,3g}{34,5g - 44,25v - 4,1r}$ $g = \frac{44,25hv + 15,93bv + 4,1hr}{34,5h + 12,42b + 2,3}$ $b = \frac{-34,5gh + 44,25hv + 4,1hr - 2,3g}{12,42g - 15,93v}$
<p>3</p>	<p>Bitte bestimmen Sie die Unbekannten in den Gleichungssystemen</p> <p>a)</p> $-8,1(13,9b + 11,5c) + 14,8(-7,5b - 12,6c) - 5,8 = -2170,729$ $-10,4(-14,1b + 5c) - 6,6(4,8b - 4,8c) - 9,2 = -848,8$ <p>L:</p> <p>b = -5,2; c = 11,9;</p> <p>b)</p> $-7,2(-2,1t + 3,4h) + 12,7(-5,7t - 14,2h) - 14,4 = -2124,801$ $-4,6(9,2t - 4,6h) - 11,1(9,1t + 9,3h) - 9,8 = -2191,667$ <p>L:</p> <p>t = 11,1; h = 7,2;</p>
<p>4</p>	<p>Bitte bestimmen Sie die Unbekannten in den Gleichungssystemen</p> <p>a)</p> $\frac{1}{4}u + \frac{1}{4}i + \frac{6}{13}g = \frac{209}{312}$ $-\frac{6}{5}u - \frac{1}{7}i + \frac{3}{2}g = \frac{34}{105}$ $-\frac{11}{10}u - \frac{15}{11}i - \frac{11}{6}g = -\frac{893}{330}$ <p>L :</p> $u = 1; \quad i = -\frac{1}{6}; \quad g = 1;$ <p>b)</p> $11h + 13k + 8j = -122$ $10h + 3k - 9j = -216$ $10h - 3k - 13j = -238$ <p>L:</p> <p>h = -15; k = -1; j = 7;</p> <p>c)</p> $-5(-7f - 8i) - 3(-15f - 2s) + (-8i - 9s) + 10 = -1002 ;$ $-4(5f + 2i) - 2(-13f - 8s) + 7(6i + 7s) + 6 = 302 ;$ $-8(13f + 8i) + 4(-9f + 2s) + 6(-15i - 15s) - 12 = 1986$ <p>L:</p> <p>f = -7; i = -13; s = 12;</p>