

## Lösungen:

1	<p>Bitte bestimmen Sie (nacheinander) die angegebenen Unbekannten.</p> <p>a)</p> $t - su = -u + 2su \quad [t \ u \ s]$ <p>L :</p> $t = 3su - u$ $u = \frac{-t}{-3s + 1}$ $s = \frac{u + t}{3u}$ <p>b)</p> $-4rt + 3st = -rs - 2u \quad [r \ t \ s \ u]$ <p>L :</p> $r = \frac{-2u - 3st}{s - 4t}$ $t = \frac{-rs - 2u}{-4r + 3s}$ $s = \frac{-2u + 4rt}{r + 3t}$ $u = \frac{-rs + 4rt - 3st}{2}$
2	<p>Bitte bestimmen Sie alle Unbekannten:</p> <p>a)</p> $\frac{-3c}{-5} = \frac{6j}{-7x}$ <p>L :</p> $c = \frac{-10}{7} \cdot \frac{j}{x}$ $j = \frac{-7}{10} \cdot cx$ $x = \frac{-10}{7} \cdot \frac{j}{c}$ <p>b)</p> $\frac{u}{-3e} = \frac{3t}{-7m}$ <p>L :</p> $u = \frac{9}{7} \cdot \frac{et}{m}$ $e = \frac{7}{9} \cdot \frac{um}{t}$ $t = \frac{7}{9} \cdot \frac{um}{e}$ $m = \frac{9}{7} \cdot \frac{et}{u}$

	<p>c)</p> $\frac{9t}{2p} = \frac{-2}{7d}$ <p>L :</p> $t = \frac{-4}{63} \cdot \frac{p}{d}$ $p = \frac{-63}{4} \cdot td$ $d = \frac{-4}{63} \cdot \frac{p}{t}$												
<p>3</p>	<p>Bitte bestimmen Sie (nacheinander) die angegebenen Unbekannten.</p> <p>a)</p> $\frac{-6df - 7}{-d + ef} + 3c = -4c \quad [f \ d \ e]$ <p>L :</p> $f = \frac{7cd + 7}{7ce - 6d}$ $d = \frac{-7cef + 7}{-7c - 6f}$ $e = \frac{7cd + 6df + 7}{7cf}$ <p>b)</p> $\frac{7de - 2cd}{2c + 1} + 6e = -8f \quad [e \ d \ c]$ <p>L :</p> $e = \frac{-16cf - 8f + 2cd}{12c + 6 + 7d}$ $d = \frac{-16cf - 8f - 12ce - 6e}{7e - 2c}$ $c = \frac{-8f - 6e - 7de}{16f + 12e - 2d}$												
<p>4</p>	<p>Bitte bringen Sie's in die Form <math>(\square + \square)(\square + \square)</math></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">a) <math>40as + 35a - 16s^2 - 14s</math></td> <td style="width: 50%;">  L: <math>(5a - 2s)(8s + 7)</math></td> </tr> <tr> <td>b) <math>-2j^2 - 7j + 4</math></td> <td>  L: <math>(j + 4)(-2j + 1)</math></td> </tr> <tr> <td>c) <math>-42hz + 24h - 35z + 20</math></td> <td>  L: <math>(6h + 5)(-7z + 4)</math></td> </tr> <tr> <td>d) <math>6ik - i + 6k - 1</math></td> <td>  L: <math>(i + 1)(6k - 1)</math></td> </tr> <tr> <td>e) <math>14h^2 - 25h + 6</math></td> <td>  L: <math>(2h - 3)(7h - 2)</math></td> </tr> <tr> <td>f) <math>8ms + 6m + 4s^2 + 3s</math></td> <td>  L: <math>(2m + s)(4s + 3)</math></td> </tr> </table>	a) $40as + 35a - 16s^2 - 14s$	L: $(5a - 2s)(8s + 7)$	b) $-2j^2 - 7j + 4$	L: $(j + 4)(-2j + 1)$	c) $-42hz + 24h - 35z + 20$	L: $(6h + 5)(-7z + 4)$	d) $6ik - i + 6k - 1$	L: $(i + 1)(6k - 1)$	e) $14h^2 - 25h + 6$	L: $(2h - 3)(7h - 2)$	f) $8ms + 6m + 4s^2 + 3s$	L: $(2m + s)(4s + 3)$
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