

Lösungen:

<p>1</p>	<p>Bitte lösen Sie das Gleichungssystem:</p> $-2,9(-3,4a + 1,6s) + 2,1(-1,4a - 3,9c) + 1,3(-4,1s + 4,1c) - 1,7 = -29,487$ $1,1(-4,6a - 1,1s) - 1,2(-3a - 4,5c) - 2,5(-s + 1,3c) - 4,2 = -5,246$ $2,6(-1,5a - 1,4s) - 4(-2,7a - 1,2c) - 3,6(-3,7s - 3,2c) - 3,9 = 16,428$ <p>L:</p> $+ 6,92a - 9,97s - 2,86c = -27,787$ $- 1,46a + 1,29s + 2,15c = -1,046$ $+ 6,9a + 9,68s + 16,32c = 20,328$ <p>a = 1,6; s = 4,5; c = -2,1;</p>
<p>2</p>	<p>Bitte bestimmen Sie die Unbekannten.</p> <p>a) $((((5h+4)*(-2)+2)*(-3)-3)*2-4)*(-4)-3 = 853$</p> <p>L: h = -4</p> <p>b) $(((-3b+4)*4+5b)*5+3b)*(-4)+5b = 212$</p> <p>L: b = 4</p> <p>c) $\frac{-4}{2g-4} - 4 = -\frac{14}{3}$ L: g = 5</p> <p>d) $\frac{5r-3}{5r+3} + 2 = 6$ L: r = -1</p>
<p>3</p>	<p>Bestimmen Sie die Linearfaktorzerlegung:</p> <p>a) $f(x) = 2x^4 - 50x^2 + 288$</p> <p>L: x_{N1} = 4; x_{N2} = -4; x_{N3} = 3; x_{N4} = -3; $f(x) = 2(x + 4)(x - 4)(x + 3)(x - 3);$</p> <p>b) $f(x) = -4x^4 + 128x^2 - 1024$</p> <p>L: x_{N1} = 4; x_{N2} = -4; x_{N3} = 4; x_{N4} = -4; $f(x) = -4(x + 4)^2(x - 4)^2;$</p>

c) $f(x) = -2x^4 + 83,06x^2 - 852,0192$

L:

$$x_{N1} = 4,8;$$

$$x_{N2} = -4,8;$$

$$x_{N3} = 4,3;$$

$$x_{N4} = -4,3;$$

$$f(x) = -2(x + 4,8)(x - 4,8)(x + 4,3)(x - 4,3);$$

d) $f(x) = x^4 - 22,1x^2 + 115,1329$

L:

$$x_{N1} = 2,9;$$

$$x_{N2} = -2,9;$$

$$x_{N3} = 3,7;$$

$$x_{N4} = -3,7;$$

$$f(x) = (x + 2,9)(x - 2,9)(x + 3,7)(x - 3,7);$$