

Lösungen:

1	<p>Bitte lösen Sie die Gleichungssysteme</p> <p>a)</p> $\begin{aligned} 9,2j + 5,9i - 6,3k &= 44,05 \\ 5,4j + 6,5i + 5,5k &= -62,53 \\ -7,1j + 4i - 6,8k &= -16,2 \end{aligned}$ <p>L:</p> $\begin{aligned} j &= 4,8; \\ i &= -7,6; \\ k &= -7,1; \end{aligned}$ <p>b)</p> $\begin{aligned} 1,3g - 6,7r + 5,4a &= 66,99 \\ 10g - 4,3r &= -15,48 \\ 7r + 7a &= -6,3 \end{aligned}$ <p>L:</p> $\begin{aligned} g &= -4,3; \\ r &= -6,4; \\ a &= 5,5; \end{aligned}$ <p>c)</p> $\begin{aligned} -3,3(-3,6o + 3,4v) - 5(4,1o - 2,3e) + 1,6(4,2v - 2,3e) + 4,8 &= 29,688 \\ 2,9(-4,5o + 3,6v) + 5(3,5o - 1,2e) + 2,2(-4,2v + 2e) + 4,7 &= 6,41 \\ 4,5(-3,6o - 2,4v) + 3,7(-2,5o - 1,6e) - 2,3(3,7v + 1,1e) + 1,2 &= -21,21 \end{aligned}$ <p>L:</p> $\begin{aligned} o &= 3; \\ v &= -4,5; \\ e &= 3,9; \end{aligned}$ <p>d)</p> $\begin{aligned} \frac{5}{2}u - 5t - 3e &= \frac{31}{4} \\ \frac{1}{2}u + t + \frac{5}{3}e &= -\frac{197}{60} \\ \frac{2}{3}u - \frac{3}{2}t - \frac{4}{5}e &= \frac{67}{30} \end{aligned}$ <p>L:</p> $\begin{aligned} u &= -\frac{2}{5}; \\ t &= -1; \\ e &= -\frac{5}{4}; \end{aligned}$
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e)

$$-g - d - 2f = -\frac{1}{3}$$

$$-\frac{2}{3}g + 3d + \frac{4}{5}f = -\frac{379}{75}$$

$$\frac{5}{2}g + \frac{3}{4}d - \frac{3}{2}f = -\frac{3}{20}$$

L :

$$g = \frac{4}{5};$$

$$d = -\frac{5}{3};$$

$$f = \frac{3}{5};$$

f)

$$4,9s - 3,8w + 3n = 30,093$$

$$-4,1w - 1,6n = 7,209$$

$$1,3s - 1,8w = 8,563$$

L:

$$s = 3,25;$$

$$w = -2,41;$$

$$n = 1,67;$$

g)

$$-4,5s + 1,3u - 4,6m = -23,72$$

$$3,6s + 2,9u - 3,3m = 18,298$$

$$-1,7s - 4,7u - 4,6m = -38,576$$

L:

$$s = 3,93;$$

$$u = 4,31;$$

$$m = 2,53;$$