6.3. Dependencia lineal

$$\vec{0} = \alpha_1 \cdot \vec{v}_1 + \alpha_2 \cdot \vec{v}_2 + \dots + \alpha_n \cdot \vec{v}_n$$

$$(1,0,0),\ (0,2,0),\ (2,4,0)\ ¿l.d$$

$$\boxed{(0,0,0) = \alpha_1 \cdot (1,0,0) + \alpha_2 \cdot (0,2,0) + \alpha_3\ (}$$

$$\begin{cases} 0 = 1 \cdot \alpha_1 + 0 \cdot \alpha_2 + 2 \cdot \alpha_3 & \longrightarrow \\ 0 = 0 \cdot \alpha_1 + 2 \cdot \alpha_2 + 4 \cdot \alpha_3 & \longrightarrow 0= \\ 0 = 0 \cdot \alpha_1 + 0 \cdot \alpha_2 + 0 \cdot \alpha_3 & \longrightarrow \end{cases}$$

$$\begin{array}{ccc} \uparrow & \uparrow & \uparrow \\ x & y & z \end{array}$$

$$\{y = -2z,\ x = -2z\}$$

$$(-2z, -2z, z) \Rightarrow \forall \lambda \in \mathbb{R},\ (-$$

$$z = 1 \rightarrow \alpha_1 = -2,\ \alpha_2 = -2,\ \alpha_3 =$$

?

$\boxed{(2, 4, 0)}$

$0 = x + 2z$

$2y + 4z$

$0 = 0$

$(2\lambda, -2\lambda, \lambda)$

$= 1$

$z = -3 \to \alpha_1 = 6, \alpha_2 = 6, \alpha_3 = -$

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