e)
$$\begin{pmatrix} 2 & 1 & -2 & | & -2 \\ 3 & 2 & -1 & | & 4 \\ 1 & 1 & 1 & | & 6 \end{pmatrix}$$

$$\underset{R_{1,3}}{\sim} \begin{pmatrix} 1 & 1 & 1 & | & 6 \\ 3 & 2 & -1 & | & 4 \\ 2 & 1 & -2 & | & -2 \end{pmatrix}$$

$$\underset{R_3 - 2R_1}{\overset{R_2 - 3R_1}{\sim}} \begin{pmatrix} 1 & 1 & 1 & | & 6 \\ 0 & -1 & -4 & | & -14 \\ 0 & -1 & -4 & | & -14 \end{pmatrix}$$

$$\underset{R_3 + R_2}{\overset{-R_2}{\sim}} \begin{pmatrix} 1 & 1 & 1 & | & 6 \\ 0 & 1 & 4 & | & 14 \\ 0 & 0 & 0 & | & 0 \end{pmatrix}$$

Rang = aantal niet nulrijen in de rij-canonieke vorm

$$\underset{R_1 - R_2}{\sim} \begin{pmatrix} 1 & 0 & -3 & | & -8 \\ 0 & 1 & 4 & | & 14 \\ 0 & 0 & 0 & | & 0 \end{pmatrix}$$

rij canonieke vorm

rang = 2

$$\begin{cases} x \quad -3z = -8 \\ \quad y + 4z = 14 \end{cases}$$

oneindig veel opl

$r(A_b) = r(A) = 2 < 3$

$$\begin{cases} x = 3z - 8 \\ y = -4z + 14 \end{cases}$$

$$V = \{(3t-8, -4t+14, t) \mid t \in \mathbb{R}\}$$