Suppose that the augmented matrix for a system reduces to $\begin{bmatrix} 1 & -4 & 5 & 6 \\ 0 & 0 & 0 & 0 \end{bmatrix}$. Describe the solutions, the intersections of the rows, geometrically and in parametric vector form.

a) a line $t \begin{bmatrix} 1 \\ -4 \\ 5 \\ 6 \end{bmatrix}$ in $\mathbb{R}^4$

b) a plane $s \begin{bmatrix} 4 \\ 1 \\ 0 \end{bmatrix} + t \begin{bmatrix} -5 \\ 0 \\ 1 \end{bmatrix} + \begin{bmatrix} 6 \\ 0 \\ 0 \end{bmatrix}$ in $\mathbb{R}^3$

c) another line

d) another plane

e) none of the above