Exercise 3.

Intersection point $\begin{pmatrix} 1 \\ -2 \\ 1 \end{pmatrix}$ because its an intersection from the rows in M

then $M\begin{pmatrix} 1 \\ -2 \\ 1 \end{pmatrix} = 0$ should give a non-zero solution. It satisfies $Mx=0$

Infinitely many vectors in the nullspace → Infinite points

Geometric interpretation the projection is a vanishing point.
Where two parallell lines converge.

Camera center by finding null space. $\longrightarrow$ $\begin{matrix} X & & & = 0 \\ & Y & & = 0 \\ & & Z+W & = 0 \end{matrix} \rightarrow \begin{cases} X=0 \\ Y=0 \\ Z=-1 \\ W=1 \end{cases}$

Camera center: $(0 \;\; 0 \;\; -1 \;\; 1)$

The [illegible] axis = $(0 \;\; 0 \;\; -1)$ ← Viewing direction