→ $su - tv = g - p$

$$\begin{aligned} s - 3t &= -1 \\ s + t &= 2 \\ s + t &= 2 \end{aligned} \Rightarrow s = \frac{5}{4}, t = \frac{3}{4}$$

→ $\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 1 \\ 0 \\ -1 \end{bmatrix} + \frac{5}{4}\begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix} = \begin{bmatrix} 9/4 \\ 5/4 \\ 1/4 \end{bmatrix}$

- Homogeneous system
  → the constant terms are 0.

~~Def. A system of linear equations~~

Thm. If $[A|0]$ is homogeneous,
A is $m \times n$, $m < n$,
it has ∞ sols.

2.3 Spanning Sets and Linear Independence