

Step-1

We need to explain $v = (1, 0, -1)$ cannot be a row of A and also be in the null space.

Let A be the matrix.

If $Av = 0$ and v is a row of A then

$$v \times v = 0$$

$$\Rightarrow v = 0$$

Therefore, $\hat{0}$ is only vector is in both row space of A and null space of A

Step-2

Hence

$$[1, 0, -1] \cdot [1, 0, -1]$$

$$\Rightarrow 1 + 0 + 1$$

$$\Rightarrow 2 \neq 0$$

Therefore, $v = (1, 0, -1)$ cannot be a row of A and also be in the null space.