

Quiz 4

1. Let $A = \begin{bmatrix} -1 & 2 & 3 & 6 \\ 2 & -5 & -6 & -12 \\ 1 & -3 & -3 & -6 \end{bmatrix}$ and $B = \begin{bmatrix} -1 & 2 & 3 & 6 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix}$. Assume that A is row equivalent to B . Find

(a) rank A

(b) $\dim \text{Nul } A$

(c) a basis for $\text{Col } A$

(d) a basis for $\text{Row } A$

(e) a basis for $\text{Nul } A$