

Let $A = \begin{bmatrix} 3 & 0 & -1 \\ 15 & 4 & -4 \\ 0 & 4 & 1 \end{bmatrix}$ and B be another 3×3 matrix. The determinant of B is 3.

a. (3 points) Compute the determinant of A .

b. (5 points) Find a basis for $\text{Null}(A)$ (the null space of A).

c. (2 points) Describe $\text{Null}(B)$.