

Quiz 7 Take-home

1. Find **all** eigenvalues of the following 3×3 matrix A . Then for each eigenvalue λ find a basis for $\text{null}(A - \lambda I)$. That is, find a basis for the *eigenspace*. (this is just a definition/terminology for what you are doing in the second step)

$$A = \begin{bmatrix} 2 & 0 & -1 \\ 0 & 2 & -1 \\ 1 & 0 & 3 \end{bmatrix}$$