KFUPM/ Department of Mathematics & Statistics Name and ID#:
MATH 260-05/ Quiz 3

Serial#:

1. Find the eigenvalues and corresponding bases for the eigenspaces of $A = \begin{bmatrix} 1 & -2 \\ 3 & 6 \end{bmatrix}$

2. Let A be a 2×2 matrix with eigenvectors $u = (1, 1)$, $v = (1, 0)$ corresponding respectively to the eigenvalues $\lambda_1 = 2$, $\lambda_2 = -1$. Use diagonalization to compute A^{10}