QUIZZES MATH 302-181

Quiz 1:
In 3-space R^3, is the subset $\{(x, y, z) : 3x - 2y + z + 1 = 0\}$ a subspace?

Quiz 2:
Find the eigenvalues and eigenvectors of $A = \begin{pmatrix} 4 & 2 & -1 \\ 0 & 3 & -2 \\ 0 & 0 & 5 \end{pmatrix}$. Then without finding A^{-1}, find its eigenvalues and corresponding eigenvectors.

Quiz 3:
Evaluate $\int\int F.ndS$ where $F = (bxy^2, bx^2y, (x^2 + y^2)z^2)$ and S is the closed surface bounding the region D consisting of the solid cylinder $x^2 + y^2 \leq a^2$ and $0 \leq z \leq b$.

Quiz 4: Describe the set of points in the complex plane that satisfies $|z - i| + |z + i| = 1$.

Quiz 5: Evaluate the given integral along the contour: $\int_C Im(z - i)dz$, where C is the polygonal path consisting of the circular arc along $lzl = 1$ from $z = 1$ to $z = i$ and the line segment from $z = i$ to $z = -1$.