Week 3 Problem Set 2

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# Step 1: Determine Eigenvalues

The 3x3 determinant can be rewritten as:

Expanding this out, we get our characteristic polynomial:

Factoring this (trivial from the preceding step), we can easily obtain our eigenvalues.

# Step 2: Determine Eigenvalues

Generally speaking:

We have 3 eigenvalues that each correspond to an eigenvector.

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Convert to reduced row echelon form:

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