6 Chapter 6: Eigenvalues

6.1 Eigenvalues and Eigenvectors

1. if \( \exists x \) s.t. \( Ax = \lambda x \), then
   
   (a) \( \lambda \) is the eigenvalue or characteristic value
   
   (b) \( x \) is the eigenvector or characteristic vector belonging to \( \lambda \)

2. \( p(\lambda) = \det(A - \lambda I) \) is the characteristic poly

3. \( \det(A - \lambda I) = 0 \) is the characteristic equation

4. table page 302