MTHSc 208, Spring 2011

Week 7 summary:

- If $A\vec{v} = \lambda\vec{v}$, then $\vec{v}$ is an <u>eigenvector</u> of A with <u>eigenvalue</u> λ.

  To find λ, solve $\det(A - \lambda I) = 0$ for λ.

  To find v, solve $(A - \lambda I)\vec{v}$ for $\vec{v}$.

  <u>Note</u>: $\det(A - \lambda I) = \lambda^2 - (\operatorname{tr} A)\lambda + (\det A) = 0$, $\quad \operatorname{tr} A = a_{11} + a_{22}$