# Eigenvalues $\lambda$ and Eigenvectors $\vec{x}$ of A: $A\vec{x} = \lambda \vec{x}$ • $\vec{x}_1 = A\vec{x}_0 = \lambda \vec{x}_0$



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In the longterm, for most starting positions, the system (circle one): dies off, stabilizes, grows as the line with equation y = \_\_\_\_\_ corresponding to the eigenvector \_\_\_\_\_, except if the coefficient of \_\_\_\_\_ equals 0, then the system (circle one): dies off, stabilizes, grows corresponding to \_\_\_\_\_.