

## Real and Distinct Eigenvalues

So, we know how we can find straight-line solutions to a linear, constant coefficient, homogeneous system, and these give us solutions to the system. Since we are dealing with a linear system, the next question we want to ask is if we can use this to give a general solution to the problem.

So, if we want a general solution, that means we need to meet every initial condition. What does this mean?

**Theorem 0.1.**