	Eigenvalue Multiplicity	$\psi_i(t)$ functions	Exponential Matrix
$n=2$	simple: $\lambda_1 \neq \lambda_2$	$\psi_0(t) = -\frac{\lambda_2}{\lambda_1-\lambda_2} e^{\lambda_1 t} - \frac{\lambda_1}{\lambda_2-\lambda_1} e^{\lambda_2 t}$ $\psi_1(t) = \frac{1}{\lambda_1-\lambda_2} e^{\lambda_1 t} + \frac{1}{\lambda_2-\lambda_1} e^{\lambda_2 t}$	$e^{At} = \psi_0(t) I + \psi_1(t) A$
	double: $\lambda_1 = \lambda_2$	$\psi_0(t) = e^{\lambda_1 t} - \lambda_1 t e^{\lambda_1 t}$ $\psi_1(t) = t e^{\lambda_1 t}$	
$n=3$	simple: $\lambda_1 \neq \lambda_2$, $\lambda_2 \neq \lambda_3$, $\lambda_3 \neq \lambda_1$	$\psi_0(t) = \frac{\lambda_2\lambda_3}{(\lambda_1-\lambda_2)(\lambda_1-\lambda_3)} e^{\lambda_1 t} + \frac{\lambda_1\lambda_3}{(\lambda_2-\lambda_1)(\lambda_2-\lambda_3)} e^{\lambda_2 t} + \frac{\lambda_1\lambda_2}{(\lambda_3-\lambda_1)(\lambda_3-\lambda_2)} e^{\lambda_3 t}$ $\psi_1(t) = \frac{-(\lambda_2+\lambda_3)}{(\lambda_1-\lambda_2)(\lambda_1-\lambda_3)} e^{\lambda_1 t} + \frac{-(\lambda_1+\lambda_3)}{(\lambda_2-\lambda_1)(\lambda_2-\lambda_3)} e^{\lambda_2 t} + \frac{-(\lambda_1+\lambda_2)}{(\lambda_3-\lambda_1)(\lambda_3-\lambda_2)} e^{\lambda_3 t}$ $\psi_2(t) = \frac{1}{(\lambda_1-\lambda_2)(\lambda_1-\lambda_3)} e^{\lambda_1 t} + \frac{1}{(\lambda_2-\lambda_1)(\lambda_2-\lambda_3)} e^{\lambda_2 t} + \frac{1}{(\lambda_3-\lambda_1)(\lambda_3-\lambda_2)} e^{\lambda_3 t}$	$e^{At} = \psi_0(t) I + \psi_1(t) A + \psi_2(t) A^2$
	one simple one double $\lambda_1 \neq \lambda_2 = \lambda_3$	$\psi_0(t) = \frac{\lambda_2^2}{(\lambda_1-\lambda_2)^2} e^{\lambda_1 t} + \frac{\lambda_1^2 - 2\lambda_1\lambda_2}{(\lambda_1-\lambda_2)^2} e^{\lambda_2 t} - \frac{\lambda_1\lambda_2}{\lambda_1-\lambda_2} t e^{\lambda_2 t}$ $\psi_1(t) = \frac{-2\lambda_2}{(\lambda_1-\lambda_2)^2} e^{\lambda_1 t} + \frac{2\lambda_2}{(\lambda_1-\lambda_2)^2} e^{\lambda_2 t} + \frac{\lambda_1+\lambda_2}{\lambda_1-\lambda_2} t e^{\lambda_2 t}$ $\psi_2(t) = \frac{1}{(\lambda_1-\lambda_2)^2} e^{\lambda_1 t} - \frac{1}{(\lambda_1-\lambda_2)^2} e^{\lambda_2 t} - \frac{1}{\lambda_1-\lambda_2} t e^{\lambda_2 t}$	
	triple $\lambda_1 = \lambda_2 = \lambda_3$	$\psi_0(t) = e^{\lambda_1 t} - \lambda_1 t e^{\lambda_1 t} + \frac{\lambda_1^2}{2} t^2 e^{\lambda_1 t}$ $\psi_1(t) = t e^{\lambda_1 t} - \lambda_1 t^2 e^{\lambda_1 t}$ $\psi_2(t) = \frac{1}{2} t^2 e^{\lambda_1 t}$	