1. Find the Taylor polynomial $p_{5}(x)$ for $\sin (x)$ centered at $a=0$. Show all work.
2. Find the Taylor polynomial $p_{4}(x)$ for $e^{-x}$ centered at $a=0$. Show all work.
3. Find the Taylor polynomial $p_{4}(x)$ for $\cos (x)$ centered at $a=0$. Show all work.
4. Find the Taylor polynomial $p_{4}(x)$ for $\ln (x)$ centered at $a=1$. Show all work.
