

1. Find the 5th Maclaurin polynomial for $f(x) = \sinh x$.
2. Find the 6th Taylor polynomial for $f(x) = \cosh x$ about $x = 0$.
3. Differentiate the polynomial you found in problem 2.
4. Find the Maclaurin series for $f(x) = \cosh x$.
5. Find the interval of convergence of the series you found in problem 4.