

Math 122 Worksheet 10

1. Find the radius and interval of convergence of $\sum_{k=1}^{\infty} \frac{(x-1)^k}{k^2+1}$.
2. Find the radius and interval of convergence of $\sum_{k=1}^{\infty} k! x^k$.
3. Find the Taylor series for $f(x) = e^x$ about $x = 1$.