

Q1. Find the Interval and Radius of Convergence for  $\sum_{n=1}^{\infty} \frac{(-1)^n}{3^n n} (x-1)^{n+1}$

Final Ans. \_\_\_\_\_

I. of Conv. is \_\_\_\_\_

R. of Conv. is \_\_\_\_\_

Q2. Find the power series representation about  $x = 0$  for  $f(x) = \frac{1}{(1+x^2)^2}$ .

Final Ans. \_\_\_\_\_