Name: Grade: /10

Math 102, Calculus II, Spring 2024, Sec. 3 & 13, HTK
Quiz 3, Tue., Mar. 12
Show all your work and name any tests you use.

1. Find the interval and radius of convergence of the power series $\sum_{n=0}^{\infty} \frac{9^n + (-7)^n}{n+1} x^{2n}$.

2. **(extra credit)** Call the sum of the series $f(x)$ on its interval of convergence and evaluate $f(1/4)$.

1. Find the interval and radius of convergence of the power series $\sum_{n=0}^{\infty} \frac{4^n + (-3)^n}{n+1} x^{2n}$.

2. **(extra credit)** Call the sum of the series $g(x)$ on its interval of convergence and evaluate $g(1/3)$.

1. Find the interval and radius of convergence of the power series $\sum_{n=0}^{\infty} \frac{9^n + (-5)^n}{n+1} x^{2n+1}$.

2. **(extra credit)** Call the sum of the series $F(x)$ on its interval of convergence and evaluate $F(1/5)$.

1. Find the interval and radius of convergence of the power series $\sum_{n=0}^{\infty} \frac{4^n + (-1)^n}{n+1} x^{2n+1}$.

2. **(extra credit)** Call the sum of the series $G(x)$ on its interval of convergence and evaluate $G(1/4)$.