

Written HW19 – MATH 2502 Fall 2021

Due by 27 October for timely completion credit

Use the ratio test or the root test to determine if the series converges or diverges.

1. $\sum_{k=1}^{\infty} \frac{k!}{e^k}$

2. $\sum_{k=1}^{\infty} \frac{k^k}{3^{3k}}$

3. $\sum_{k=1}^{\infty} \frac{(-1)^k k^2 2^k}{k!}$