

Math 102 — Ratio test

Problem 1. What does the ratio test tell us about each of the following series?

a. $\sum_{n=1}^{\infty} \frac{1}{n3^n}$

b. $\sum_{n=1}^{\infty} \frac{4^n}{n!}$

c. $\sum_{n=1}^{\infty} \frac{n^2}{n!}$

d. $\sum_{n=1}^{\infty} \frac{n!}{n^3}$

e. $\sum_{n=1}^{\infty} \frac{n+2}{n^3+n}$