

Q1. Determine whether $\sum \frac{n!}{e^{n^2}}$ converges or diverges.



Q1. Determine whether $\sum \frac{1}{n+n \cdot \cos^2 n}$ converges or diverges.



Q1. Determine whether $\sum \frac{(n!)^n}{n^{4n}}$ converges or diverges.

Q1. Determine whether $\sum \frac{2^{\frac{1}{n}}}{n^2}$ converges or diverges.