SECTION 5.4: COMPARISON TESTS PLUS

For each series or test, provide a description of the series or statement of the test including what we know about convergence or divergence.

- geometric series

- p-series

- divergence test

- integral test

- comparison test

- limit comparison test

A. $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n2^n}$

B. $\displaystyle\sum_{n=1}^{\infty} 2^n$

C. $\displaystyle\sum_{n=1}^{\infty} \frac{n}{2^n}$

D. $\displaystyle\sum_{n=2}^{\infty} \frac{1}{n(\ln n)^3}$

E. $\displaystyle\sum_{n=1}^{\infty} \frac{n-4}{n^3+2n}$

F. $\displaystyle\sum_{n=2}^{\infty} \frac{1+\cos(n)}{e^n}$

G. $\displaystyle\sum_{n=3}^{\infty} \frac{n^2}{\sqrt{n^3-1}}$

H. $\displaystyle\sum_{n=1}^{\infty} \frac{n^3}{(n^4-3)^2}$

I. $\displaystyle\sum_{n=1}^{\infty}(-1)^n 3^{-n/3}$

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

K. $\displaystyle\sum_{n=1}^{\infty}\frac{n}{n^2+1}$

L. $\displaystyle\sum_{n=2}^{\infty}\frac{1}{n^2-1}$