

Worksheet 12  
11/16/2023

Use a suitable test (Divergence/Integral/Comparison Test) to identify if each of the following series converges or diverges.

(a)  $\sum \frac{1}{\sqrt{n}}$

(b)  $\sum \frac{n+1}{n^2+1}$

(c)  $\sum \frac{3n+1}{5n-7}$

(d)  $\sum 3^{-n}$

(e)  $\sum 3^{-n^2}$

$$(f) \sum \frac{1}{n \ln n}$$

$$(g) \sum \frac{1}{n \ln(n+1)}$$

$$(h) \sum \frac{n^2+5n+3}{e^n}$$

$$(i) \sum \frac{-n^2-3}{3n^4+3n^2+7}$$