

Series

Activity

Determine whether the series is convergent or divergent. If it is convergent, find its sum.

1. $\sum_{n=1}^{\infty} \frac{n-1}{3^{n-1}}$
2. $\sum_{n=1}^{\infty} \frac{1+2^n}{3^n}$
3. $\sum_{n=1}^{\infty} \sqrt[n]{2}$
4. $\sum_{n=1}^{\infty} \arctan(n)$
5. $\sum_{n=1}^{\infty} \left(\frac{1}{e^n} + \frac{1}{n(n+1)} \right)$

Use the following simulation to explore the series. Click on the link below or type the URL into your browser's address bar.

<https://teaching.smp.uq.edu.au/scims/Calculus/Series.html>

