

Series

Convergence Tests

Alternating Series Test

1. *convergence* $\sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{\sqrt{2n-1}}$

2. *convergence* $\sum_{n=1}^{\infty} (-1)^{n+1} \frac{n}{e^n}$

3. *convergence* $\sum_{n=2}^{\infty} \frac{(-1)^n}{\ln(n)}$

4. *convergence* $\sum_{n=1}^{\infty} (-1)^{n+1} \frac{n}{n^2+1}$

5. *convergence* $\sum_{n=1}^{\infty} (-1)^n \frac{\ln(n)}{n}$

6. *convergence* $\sum_{n=1}^{\infty} \frac{(-1)^n}{n!}$

7. *convergence* $\sum_{n=1}^{\infty} (-1)^{n+1} \frac{\sqrt{2n-1}}{n}$

8. *convergence* $\sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{n^{\frac{1}{3}}}$

9. *convergence* $\sum_{n=1}^{\infty} \frac{(-1)^n}{\ln(e^n + e^{-n})}$

10. *convergence* $\sum_{n=1}^{\infty} (-1)^{n+1} \left(\frac{3}{3n+1}\right)^n$

Answers

Series

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Alternating Series Test

1. converges

2. converges

3. converges

4. converges

5. converges

6. converges

7. converges

8. converges

9. converges

10. converges