

Series

Convergence Tests

p-Series Test

1. *convergence* $\sum_{n=1}^{\infty} \frac{1}{n^2}$

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

3. *convergence* $\sum_{n=1}^{\infty} \frac{1}{n^4}$

4. *convergence* $\sum_{n=1}^{\infty} \frac{1}{n^5}$

5. *convergence* $\sum_{n=1}^{\infty} \frac{1}{n^{\frac{1}{3}}}$

6. *convergence* $\sum_{n=1}^{\infty} \frac{1}{\sqrt{n}}$

7. *convergence* $\sum_{n=1}^{\infty} \frac{1}{n\sqrt{n}}$

8. *convergence* $\sum_{n=0}^{\infty} \frac{1}{n^{\frac{3}{2}}}$

9. *convergence* $\sum_{n=1}^{\infty} \frac{1}{n^{\frac{1}{5}}}$

10. *convergence* $\sum_{n=0}^{\infty} \frac{1}{n^{99}}$

Answers

Series

Convergence Tests

p-Series Test

1. converges
2. converges
3. converges
4. converges
5. diverges
6. diverges
7. converges
8. converges
9. diverges
10. converges