

Strategy for Testing Sequences

For each series write which method you would use to see if the series converges or diverges. After you've guessed a method for each, go back and see if they work. Make sure you test the conditions required for the tests you use.

1. $\sum_{n=1}^{\infty} \frac{10^n}{n!}$

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

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

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

5. $\sum_{n=1}^{\infty} \frac{(2n)^n}{n^{2n}}$