

Yes, Absolutely

Determine whether each of the following series is absolutely convergent, conditionally convergent, or divergent.

1.
$$\sum_{n=1}^{\infty} (-1)^n \frac{n^3}{n^2 + 12}$$

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

3.
$$\sum_{n=1}^{\infty} (-1)^n \frac{12}{n^2 - 7}$$

4.
$$\sum_{n=1}^{\infty} (-1)^n \left(\frac{n}{3n + 6} \right)^{2n}$$