

## Section 4-8 : Alternating Series Test

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For each of the following series determine if the series converges or diverges.

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

2. 
$$\sum_{n=0}^{\infty} \frac{(-1)^{n+3}}{n^3+4n+1}$$

3. 
$$\sum_{n=0}^{\infty} \frac{1}{(-1)^n(2^n+3^n)}$$

4. 
$$\sum_{n=0}^{\infty} \frac{(-1)^{n+6}n}{n^2+9}$$

5. 
$$\sum_{n=4}^{\infty} \frac{(-1)^{n+2}(1-n)}{3n-n^2}$$

