

Section 4-10 : Ratio Test

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

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

2.
$$\sum_{n=0}^{\infty} \frac{(2n)!}{5n + 1}$$

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

4.
$$\sum_{n=3}^{\infty} \frac{e^{4n}}{(n-2)!}$$

5.
$$\sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{6n + 7}$$

