

Name:

Section: 11 12 13

Determine if the following series converge or diverge; you may use techniques of geometric series, telescoping series,  $p$ -series, divergence test, integral test, alternating series test, and comparison tests.

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

2. 
$$\sum_{n=2}^{\infty} \frac{2^n}{5^n + 3^n}$$