

# QUIZ 1 1

For each of the following series identify a convergence test (which will not fail) to use to determine whether that series converges or diverges. Note: in some cases, there may be several tests that will work. Then use the test to determine whether the series converges or diverges.

1. (2 points)

$$\sum_{n=0}^{\infty} \frac{2}{3^{2n-1}}$$

2. (2 points)

$$\sum_{n=1}^{\infty} \frac{5}{\sqrt{n}}$$

3. (3 points)

$$\sum_{n=0}^{\infty} \frac{5n^2 - 3}{n^5 + 1}$$

4. (3 points)

$$\sum_{n=0}^{\infty} \frac{2^n}{n!}$$