Quiz 11

Determine whether the following series converge or diverge. Give a reason to support your answer.

1. (3 points)

\[ \sum_{n=0}^{\infty} (-1)^n \cdot \frac{2 - n^2}{3n^2 + 2n - 1} \]

2. (3 points)

\[ \sum_{n=0}^{\infty} \left( \frac{n^2 + 1}{3n^2 + 2n - 1} \right)^n \]

3. (4 points)

\[ \sum_{n=1}^{\infty} \frac{3^n}{n!} \]