For each of the following series determine if it is geometric or not. If it is geometric find the sum or state the series diverges.

1. \[ \sum_{n=0}^{\infty} \frac{1}{2^n} \]
   - The series is geometric / is NOT geometric.
   - If geometric, find the sum or state the series diverges.

2. \[ \sum_{n=1}^{\infty} \frac{1}{n^2} \]
   - The series is geometric / is NOT geometric.
   - If geometric, find the sum or state the series diverges.

3. \[ \sum_{n=0}^{\infty} \frac{2^{2n}}{3^n} \]
   - The series is geometric / is NOT geometric.
   - If geometric, find the sum or state the series diverges.

4. \[ 3 - \frac{6}{5} + \frac{12}{25} - \frac{24}{125} + \frac{48}{625} - \cdots \]
   - The series is geometric / is NOT geometric.
   - If geometric, find the sum or state the series diverges.