

Quiz 9
11/20/2023

1. Find the limit

$$\lim_{n \rightarrow \infty} \frac{2n^2 - n}{n^2 - 8n + 1}$$

2. Write the first 5 terms of the series $\sum_{n=0}^{\infty} \frac{(-1)^n n^2}{2^n}$ and find the fifth partial sum of the series.

3. Is the series $\sum_{n=1}^{\infty} \frac{2}{3} \left(\frac{3}{4}\right)^n$ a geometric series? If so, find the common ratio, the first term, and the value of the series (if it converges).