Quiz 9

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

1. (2 points)
\[ \sum_{n=1}^{\infty} \frac{1}{n} \]

2. (2 points)
\[ \sum_{n=0}^{\infty} e^{-n} \]

3. (2 points)
\[ \sum_{n=5}^{\infty} 2 \left( \frac{7}{6} \right)^n \]

4. (2 points)
\[ \sum_{n=1}^{\infty} \frac{2}{\sqrt[n]{n}} \]

5. (2 points)
\[ \sum_{n=1}^{\infty} \frac{n^2 + 3n^4}{2 - 5n^4} \]