

Quiz 11.1 - 11.3 - Solve without comparison tests.

Form A (2 pts. per problem)

20 pts.

Name: _____

Per.: _____

- 1) Write the first 5 terms of the following sequence beginning with $n = 1$.
 Converges or diverges? _____
 If converges, find limit.
 $\left\{ \frac{2n-1}{3n+1} \right\}$

- 2) For $\sum_{n=1}^{\infty} \frac{1}{n}$ write both S_4 and S_5 , but you don't need to calculate them.

For #3 - 8, state (a) converges or diverges and (b) how you know (e.g., test or series name). Do NOT find sums.

- 3) $\sum_{n=0}^{\infty} \frac{n-9}{n}$
 a) _____
 b) _____

- 4) $\sum_{n=0}^{\infty} \frac{1}{4^n}$
 a) _____
 b) _____

- 5) $\sum_{n=1}^{\infty} \frac{1}{\sqrt{n}}$
 a) _____
 b) _____

- 6) $\sum_{n=1}^{\infty} \frac{1}{n} - \frac{1}{n+1}$
 a) _____
 b) _____

- 7) $\sum_{n=1}^{\infty} \frac{1}{2n+1}$
 a) _____
 b) _____

- 8) $\sum_{n=1}^{\infty} 4ne^{-n}$
 a) _____
 b) _____

For #9 and 10, show that the series converges and find the sum of the series.

- 9) $\sum_{n=1}^{\infty} \frac{1}{n(n+2)}$

- 10) $\sum_{n=1}^{\infty} 3(-0.6)^n$