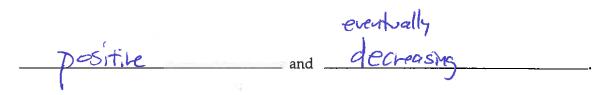
Name

Section _____

Fill in the blanks.

- 1. A geometric series $\sum_{n=0}^{\infty} ar^{n-1}$ converges if and only if ________.
- 2. A series $\sum_{n=1}^{\infty} a_n$ converges to the sum S if and only if the sequence of partial sums $\{S_n\}$ Converges to S
- 3. Given a series $\sum_{n=1}^{\infty} a_n$ and discrete function $f(n) = a_n$ which is extended to the function f(x), the three conditions which f(x) must meet in order to use the integral test are that f(x) is continuous,



- 4. A p-series $\sum_{n=1}^{\infty} \frac{1}{n^p}$ converges if and only if _______.
- 5. The (ordinary) comparison test can be used to show that the series $\sum_{n=1}^{\infty} a_n$ diverges if a divergent series $\sum_{n=1}^{\infty} b_n$ can be found with $0 \le \frac{b_n}{n} \le \frac{q_n}{n}$ for all $n \ge N$.

Section _____

Fill in the blanks.

1. A series $\sum_{n=1}^{\infty} a_n$ converges to the sum S if and only if

the sequence of partial sums $\{S_n\}$

2. Given a series $\sum_{n=1}^{\infty} a_n$ and discrete function $f(n) = a_n$ which is extended to the function f(x), the three conditions which f(x) must meet in order to use the integral test are that f(x) is continuous,

positive and eventually decreasing

- 4. A geometric series $\sum_{n=0}^{\infty} ar^{n-1}$ converges if and only if $rac{r}{2}$
- 5. The (ordinary) comparison test can be used to show that the series $\sum_{n=1}^{\infty} a_n$ converges if a convergent series $\sum_{n=1}^{\infty} b_n$ can be found with $0 \le \underline{Q_n} \le \underline{b_n}$ for all $n \ge N$.