QUIZ 10

Fill in the blanks

1. The geometric series \( a + ar + ar^2 + \ldots \) converges if ———; in this case
the sum of the series is ———.

2. If \( \lim_{n \to \infty} a_n \neq 0 \) we can be sure that the series \( \sum_{i=1}^{\infty} a_n \) ———.

3. The insertion or removal of a few terms from a series does not effect its
———, although it may effect its sum.

4. Let \( \rho = \lim_{n \to \infty} \frac{a_{n+1}}{a_n} \). The ratio test says that the series \( \sum_{n=1}^{\infty} a_n \) converges
if ———, diverges if ———.

5. \( \sum (3^k / k!) \) is an obvious candidate for the ——— Test, whereas
\( \sum k / (k^3 - k - 1) \) is an obvious candidate for the ——— Test.