Quiz 5

Student ID Number: Name _____

Math 2B, 12PM

Please justify all your answers   November 21, 2019

Please also write your full name on the back

1. True or false?

   (a) If the series $\sum_{n=1}^{\infty} a_n$ converges, then $\lim_{n\to\infty} a_n = 0$.

   (b) If $\lim_{n\to\infty} a_n = 0$, then the series $\sum_{n=1}^{\infty} a_n$ converges.

   (c) If $\lim_{n\to\infty} a_n \neq 0$ or the limit does not exist, then the series $\sum_{n=1}^{\infty} a_n$ diverges.

2. Determine whether the following series converges or diverges. If it converges, find the value of the sum.

$$\sum_{n=1}^{\infty} 2^n \cdot 7^{-n+2}.$$