QUIZ♯4   Math102-sec9.

Net Time Allowed: 25 minutes

Name: **ID ♯ :**   **Serial ♯:**

Exercise1:(08 points)

Determine whether the series $\sum_{n=1}^{\infty} \dfrac{(-1)^{n-1} + 2^n}{3^n}$, is convergent or divergent. If it is convergent, find its sum. **Justify clearly your answer !**

Exercise2:(04 points)

Find the sum of the series: $\sum_{n=0}^{\infty} \dfrac{(-1)^n}{4^n \, (2n)!}$ and $\sum_{n=0}^{\infty} \dfrac{2^n}{7^n \, n!}$.

Exercise3:(03 points)

Test the series: $\sum_{n=1}^{\infty} \left(\dfrac{1}{2}\right)^{\frac{1}{n^2}}$. **Justify clearly your answer !**