**7**. [6 points] Compute the interval of convergence of the series:

$$\sum_{n=1}^{\infty} \frac{(-1)^n}{n4^n} (x-4)^n$$

Show all work and give all necessary justification. You may assume it has radius of convergence 4 and you do not need to show this.

Interval of Convergence: \_\_\_\_\_