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

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

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.
$\qquad$

