

4. [8 points] Consider the power series

$$\sum_{n=2}^{\infty} \frac{(x-1)^n}{3^n n \sqrt{\ln(n)}}.$$

The radius of convergence of this power series is $R = 3$. Determine the interval of convergence for this power series and fully justify the convergence or divergence at the endpoints. **You may assume $R = 3$ without justification.**

Answer: Interval of convergence = _____