

## Homework

1. Find the radius of convergence of each series given below.

$$(a) \sum_{n=0}^{\infty} \frac{x^n}{(n!)^2},$$

$$(b) \sum_{n=0}^{\infty} 6^n x^{2n},$$

$$(c) \sum_{n=0}^{\infty} a_n x^n \text{ where } a_n = \begin{cases} 2^n, & n \text{ even} \\ 3^n, & n \text{ odd} \end{cases},$$

$$(d) \sum_{n=1}^{\infty} \frac{x^n}{2n}.$$