MATH 5B - Single Variable Calculus II — Spring 2019

§11.8 Power Series

In-class Activity 11.8

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Activity 1:

Determine the **interval of convergence** for:

$$\sum_{n=0}^{\infty} \frac{x^n}{3^n}$$

Activity 2:

Determine the **interval of convergence** for:

$$\sum_{n=0}^{\infty} \frac{(-1)^n n}{4^n}(x+3)^n$$

Activity 3:

Determine the **interval of convergence** for:

$$\sum_{n=0}^{\infty} \frac{2^n}{n}(4x-8)^n$$

Activity 4:

Determine the **interval of convergence** for:

$$\sum_{n=0}^{\infty} n!(2x+1)^n$$

Activity 5:

Determine the **interval of convergence** and the **radius of convergence** for:

$$\sum_{n=0}^{\infty} \frac{x^n}{n!}$$

Activity 6:

Determine the **interval of convergence** and the **radius of convergence** for:

$$\sum_{n=0}^{\infty} \frac{(-1)^n x^n}{2n+1}$$