Student: Arfaz Hossain	**Instructor:** Muhammad Awais	**Assignment:** HW-7 [Sections 10.7 & 10.8]
Date: 03/14/22	**Course:** Math 101 A04 Spring 2022	

13. Find the series' interval of convergence and, within this interval, the sum of the series as a function of x.

$$\sum_{n=0}^{\infty} \left(\frac{\sqrt{x}}{6} - 1 \right)^n$$

Find the series' interval of convergence. Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The interval of convergence is $0 < x < 144$.
  (Simplify your answer. Type a compound inequality. Use integers or fractions for any numbers in the expression.)
- **B.** The series converges only at x = .
  (Simplify your answer. Type an integer or a fraction.)
- **C.** The series converges for all values of x.

The sum of the series as a function of x is $g(x) = \dfrac{6}{12 - \sqrt{x}}$.