

1. Find the radius of coverage and interval of convergence of series

(a)

$$\sum_{n=1}^{\infty} \frac{2^n x^n}{\sqrt{n}}$$

(b)

$$\sum_{n=1}^{\infty} \frac{(-1)^n (x+2)^{2n}}{n2^n}$$

2. (a) Test the following series for convergence or divergence.

$$\sum_{n=1}^{\infty} (-1)^n \frac{2n}{3n^2 + 1}$$

(b) Is above series absolutely convergent?