

Infinite Series - Class XI

Related Questions with Solutions

Questions

Question: 01

If $|x| < 1/2$, then expansion of $(1 - 2x)^{1/2}$ is-

- A. $1 - x - \frac{1}{2}x^2 \dots$
B. $1 - x + \frac{1}{2}x^2 \dots$
C. $1 + x - \frac{1}{2}x^2 \dots$
D. None of these

Solutions

Solution: 01

$$\begin{aligned}(1 - 2x)^{\frac{1}{2}} &= 1 + (-2x) \left(\frac{1}{2}\right) + \frac{\left(\frac{1}{2}\right) \left(\frac{1}{2} - 1\right)}{2!} (-2x)^2 + \dots \\ &= 1 - x - \frac{x^2}{2} \dots\end{aligned}$$

Correct Options

Answer:01

Correct Options: A