

Random Walk Problem

Aim:- To simulate random walk and plot the graph.

Theory:- For a particle which is at position n from origin after taking N steps,

$$P(n, N) = \sqrt{\frac{2}{\pi N}} e^{-n^2/2N} \rightarrow \text{Probability of finding particle at } n \text{ after taking } N \text{ steps starting from origin}$$

Result:

