

Problem 15.18

$$\begin{aligned}\varphi_{S_n}(t) &= \varphi_{\xi_1 + \xi_2 + \dots + \xi_n}(t) = \varphi_{\xi_1}(t) \dots \varphi_{\xi_n}(t) \\ \varphi_{\xi_i}(t) &= \sum_{k=1}^{\infty} e^{itx_k} \cdot P(\xi = x_k) = \frac{1}{2}e^{-it} + \frac{1}{2} \cdot e^{it} = \cos(t) \\ \varphi_{S_n}(t) &= \cos^n(t)\end{aligned}$$

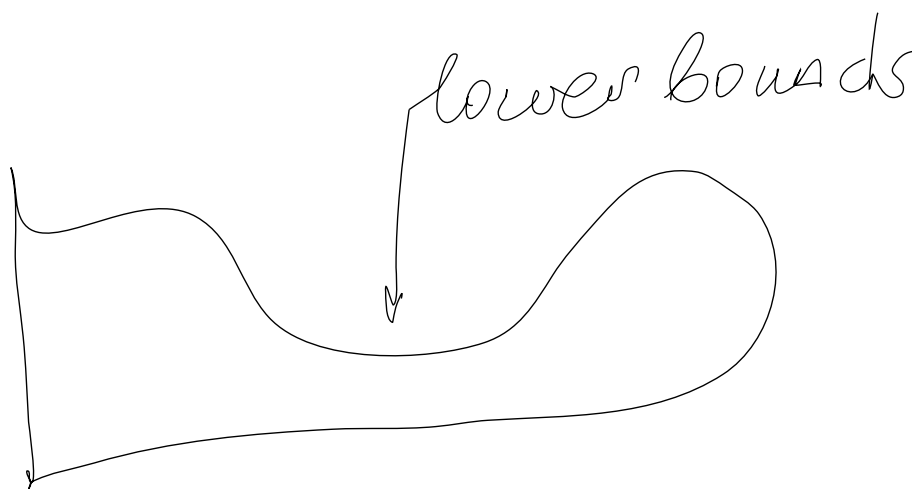


Figure 1: Graph

Problem 11.21**Problem 11.22****Problem 11.23****Problem 11.24****Problem 11.25**