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Adomian Decomposition approach to solve the simple harmonic quantum oscillator¹ ADNAN JARADAT, Jordan University of Science and Technology, ADNAN JARDAT TEAM, MAEN GHARAIBEH TEAM, MOHAMMAD QASEER TEAM, ABDALLA OBEIDAT TEAM — The simple harmonic quantum oscillator problem has been solved using two methods namely, the algebraic method where the raising and lower operators used and the Frobenius method. Here, we will adopt the Adomian decomposition method to solve this problem and derive the Hermite polynomials in much easier way than the above mentioned methods.

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