
Quantum Mechanics

Physics 237

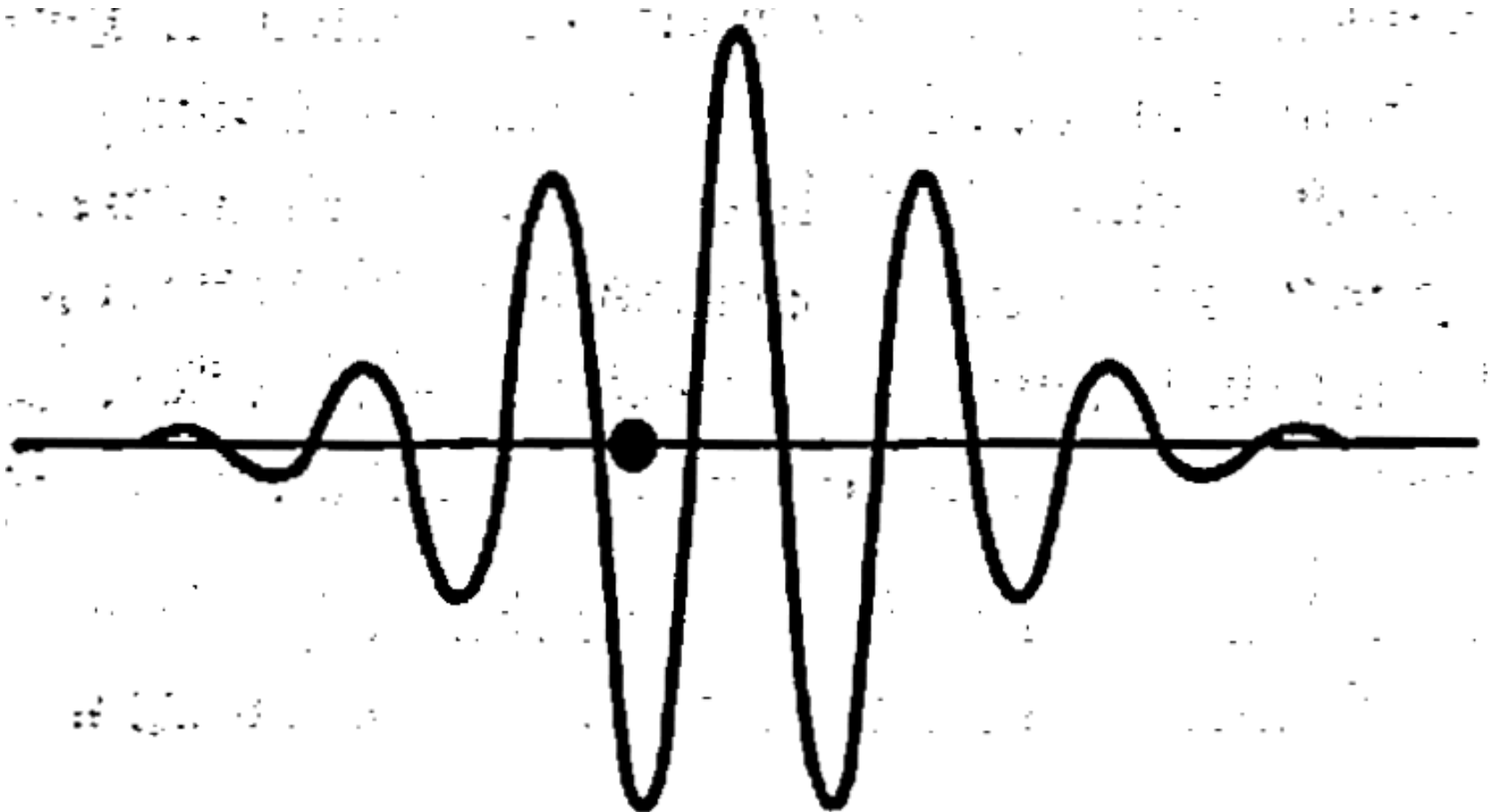
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Announcements

- Midterm Exam # 1 will take place next week, February 20, between 8 am and 9.30 am. Location to be announced.
- The material covered are Chapters 1 – 4.
- I will provide an equation sheet with the most important equations we discussed in these four Chapters.
- There will be extra office hours on Monday February 20. Monday's recitation will focus on a review of the material to be covered on the exam.
- There will be no recitations on Wednesday and on Thursday next week.

The wavefunction.

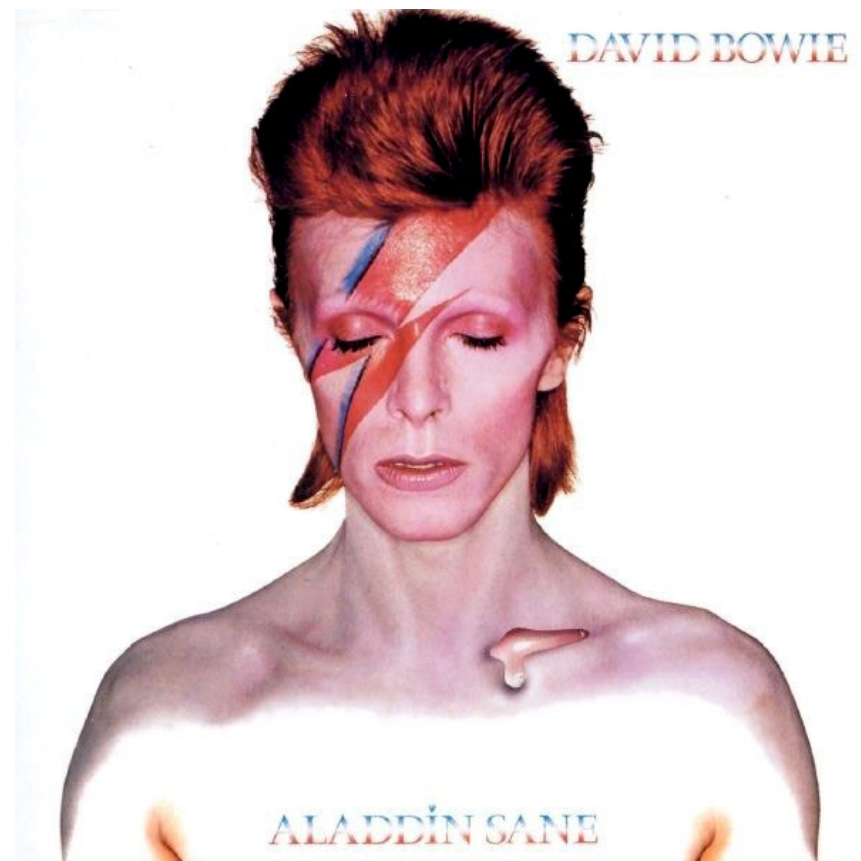
Finding the probability $P(x)$.





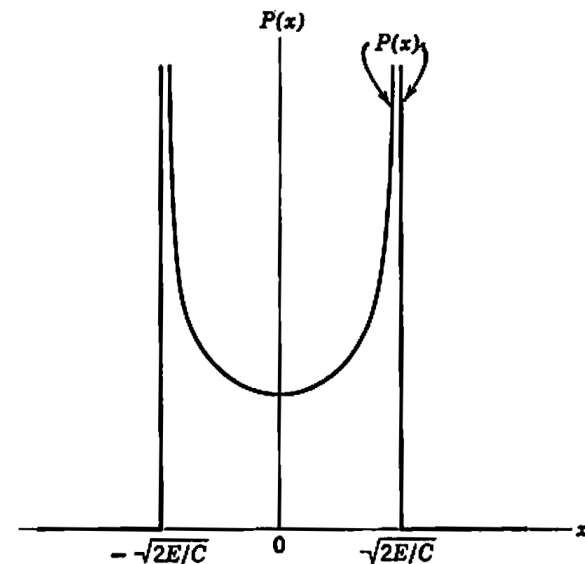
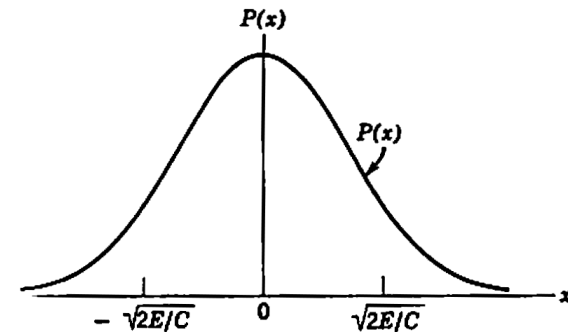
3 Minute 52 Second Intermission.

- Since paying attention for 1 hour and 15 minutes is hard when the topic is physics, let's take a 3 minute 52 second intermission.
- You can:
 - Stretch out.
 - Talk to your neighbors.
 - Ask me a quick question.
 - Enjoy the fantastic music.



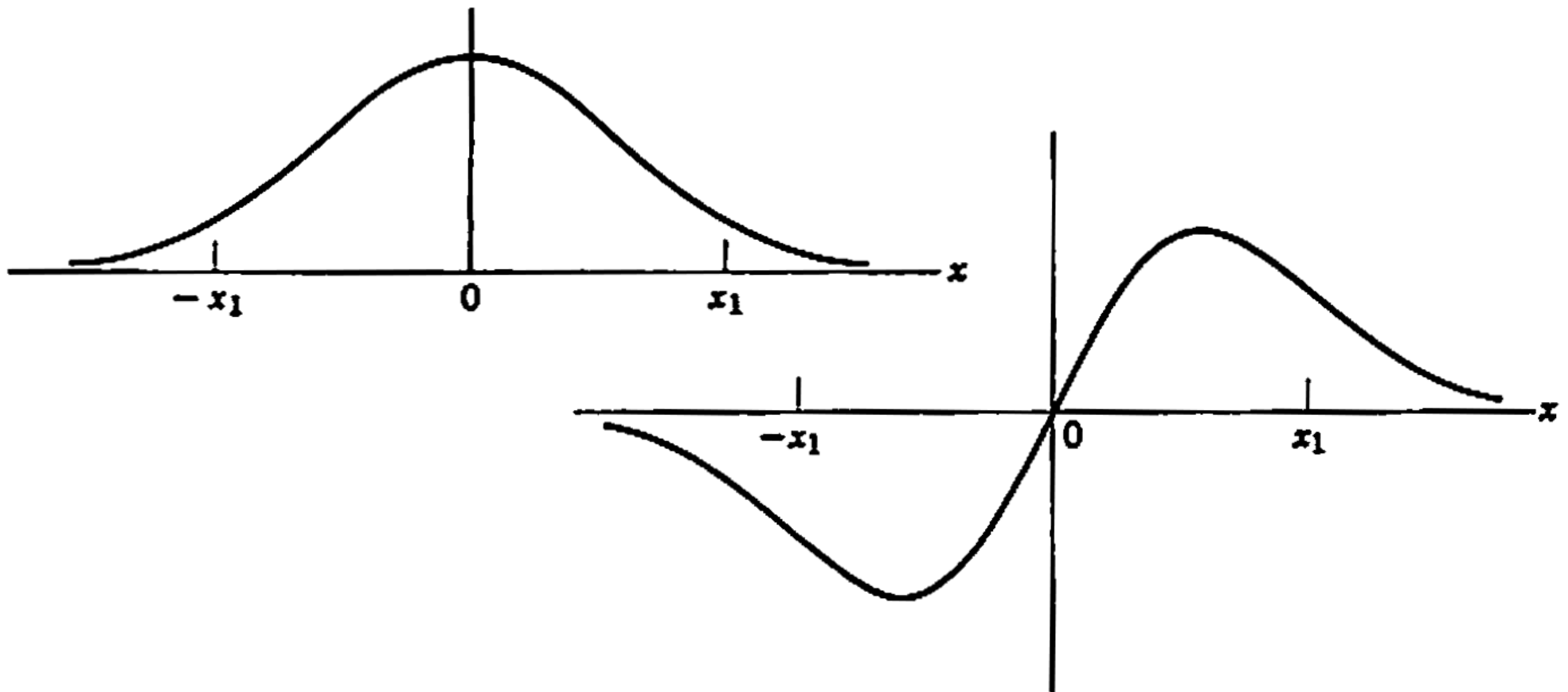
Simple harmonic motion.

- The classical and quantum model make very different predictions on the probability to find the particle at a particular position.
- Consider the equilibrium position $x = 0$:
 - In the classical model, the particle spend the least amount of time at $x = 0$.
 - In the quantum model, the particle spend the most amount of time at $x = 0$.

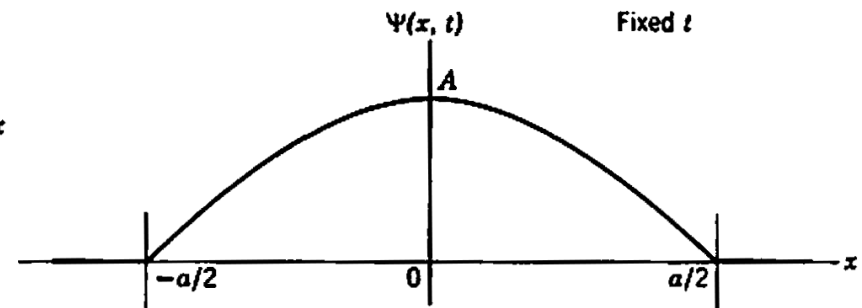
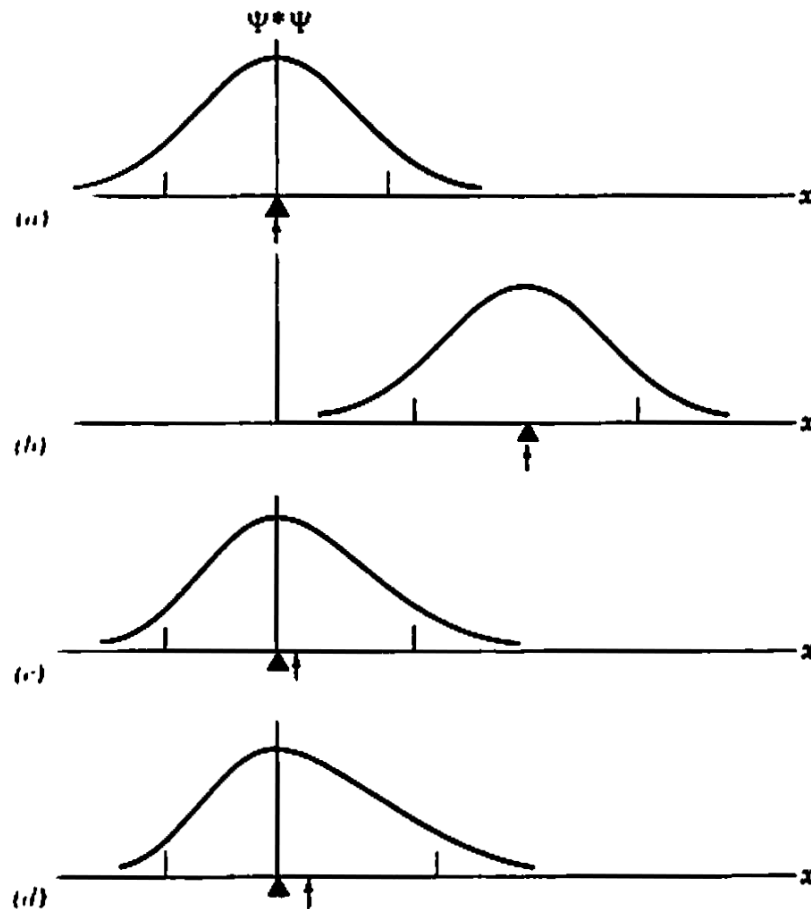


Wavefunctions.

Even and odd functions.



Wavefunctions and particle location.



ENOUGH FOR TODAY?