

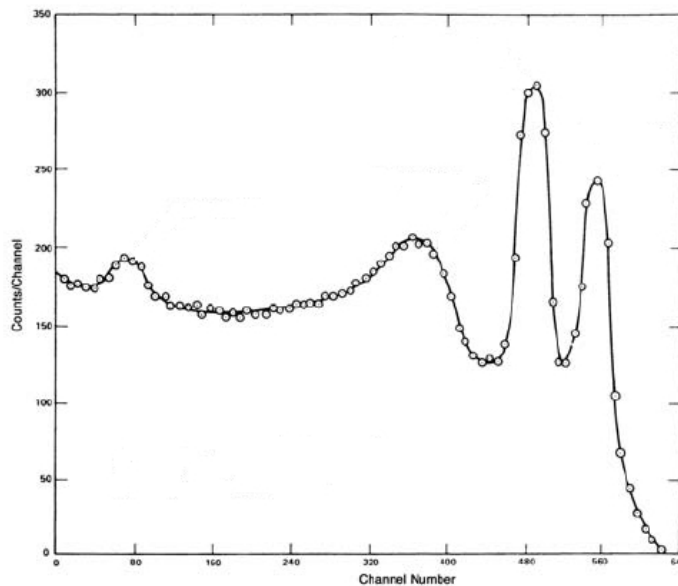
Write the following text on the front cover of your homework assignment and sign it. If the text is missing, 20 points will be subtracted from your homework grade.

Honor Pledge for Graded Assignments

"I affirm that I have not given or received any unauthorized help on this assignment, and that this work is my own."

Signature _____

1. 20 points: Chapter 2, Problem 2 (page 52).
2. 20 points: Chapter 2, Problem 15 (page 53).
3. 20 points: Chapter 2, Problem 16 (page 53).
4. 20 points: Chapter 2, Problem 29 (page 54).
5. 20 points: Chapter 2, Problem 34 (page 54).
6. 20 points extra credit: Consider the following NaI spectrum obtained with a ^{60}Co source.



Explain the four “peaks” that are visible in the spectrum in terms of the properties of the source and the detector.

Note: your explanation should be quantitative. For example, if you identify one feature as the Compton edge, you should show that it occurs at an energy that is consistent with your expectations. You also should indicate with what primary gamma-ray energy it is associated.