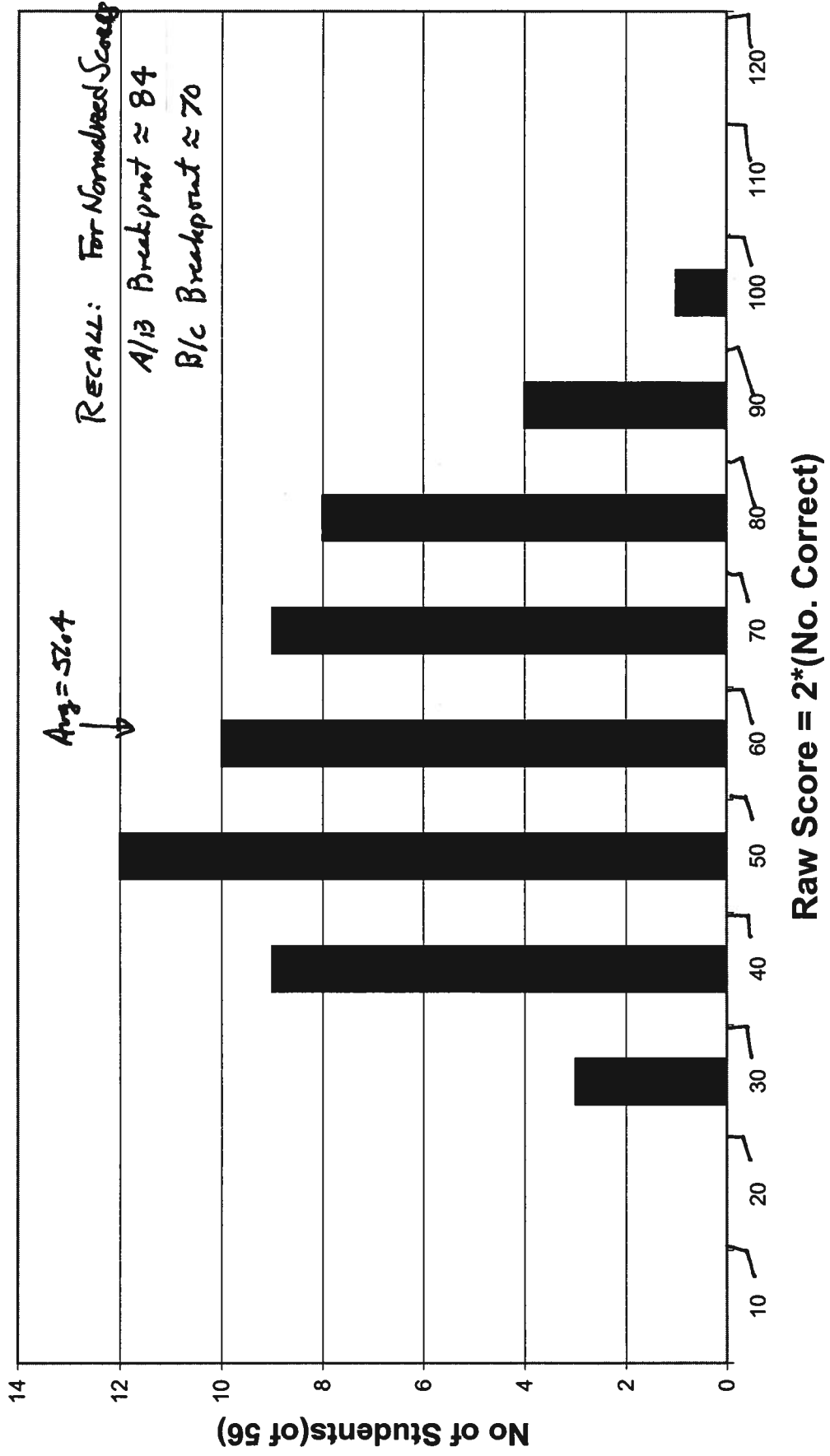


Physics 117F07-ExamIII: Avg +- StndDev = 56.4 +- 17.5;
 N = 70 + (R-56.4)*20/17.5



Name: Chris Kobus

Collaborator: Steve Payer

Date: 4/26/07

Lab time: 4pm

Title: XI Elementary Particle Physics with the Cloud Chamber

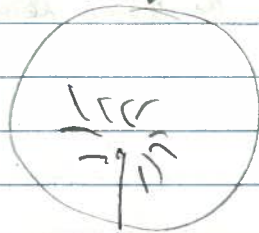
Purpose: To observe and interpret the cloud chamber tracks of elementary and nuclear particles

Procedure:

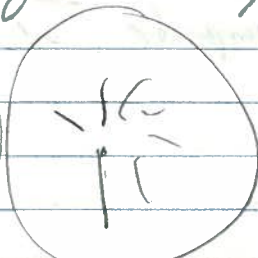
- ① set up the power source with the dry ice in the water containment.
- ② Stand from the side and view the Cosmic Rays then look for the trailing water droplets.
- ③ Use this process to identify the Alpha, Beta, and Gamma decay sources
- ④ sketch the tracks made by each
- ⑤ Estimate roughly what overall fraction of electrons is absorbed by the thick absorber and what fraction by the thin.
- ⑥ Collect all data
- ⑦ sketch Alpha w/ absorbers
- ⑧ sketch Beta + Gamma w/ absorbers
- ⑨ look up energy given off by Alpha.

Sketches:

Alpha



Thick
shorter lines



Thin
shorter + fewer