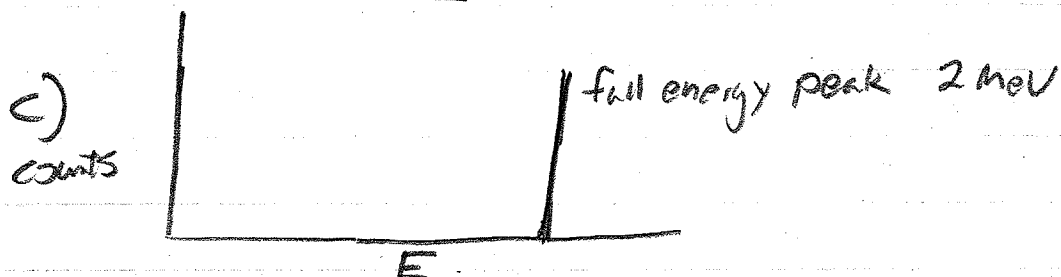
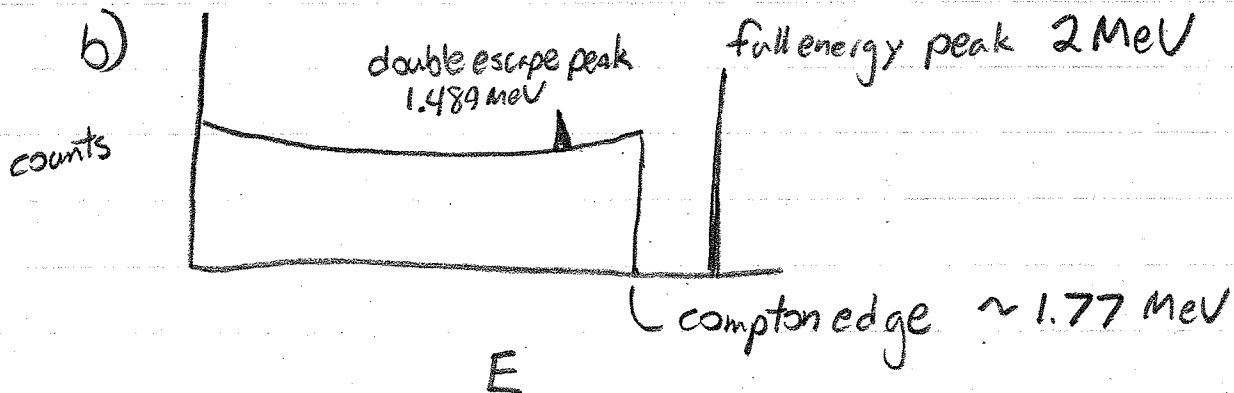
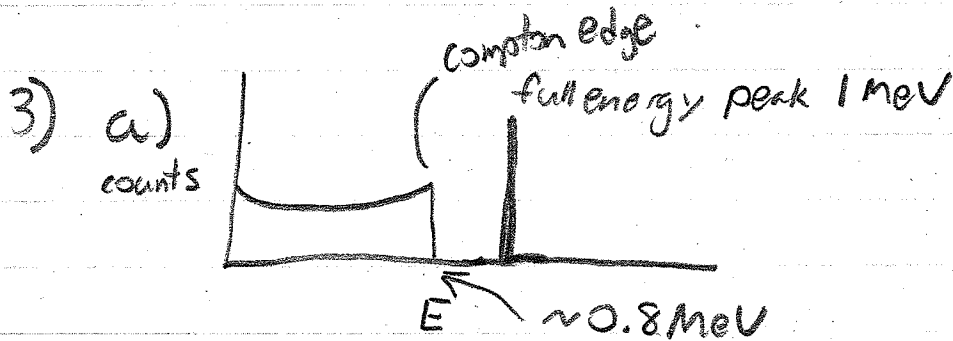


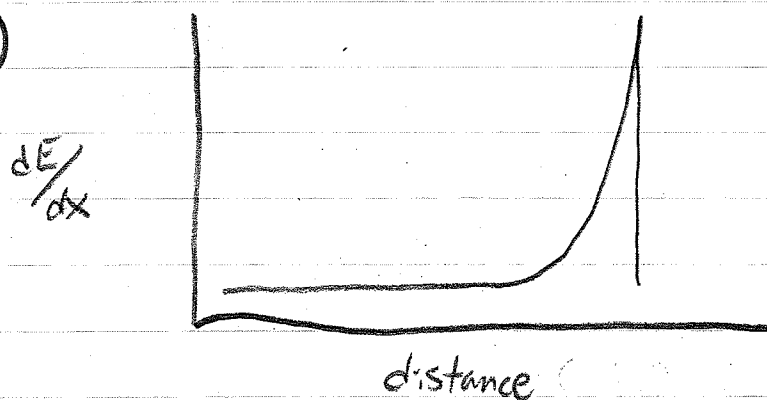
- 1) A - photoelectric effect
 B - Compton scattering
 C - pair production

a) Compton scattering

- 2) a) 1 MeV
 b) 1 MeV
 c) $1 \text{ MeV} - (1.28 \text{ MeV/cm})(0.1 \text{ cm}) = 0.872 \text{ MeV}$



4)

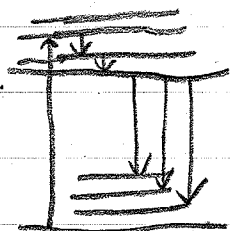


5) Ge, Si, gas proportional counter

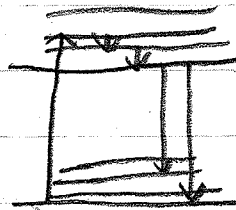
6) gas proportional counter, Si, Ge

The greater the number of charge carriers the smaller the relative fluctuations and the better the resolution

7)



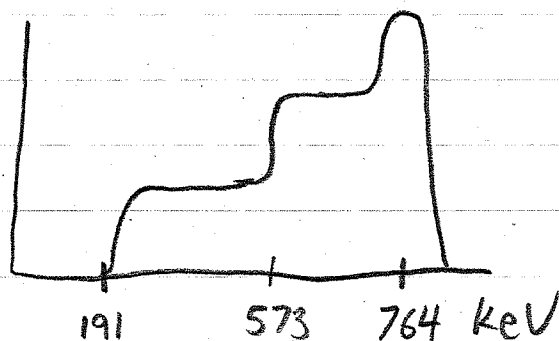
transparent



not transparent

8)

counts



9) a neutron will strike a proton and impart a portion of its energy to the proton. The proton will deposit energy into the scintillator.