Quiz #10

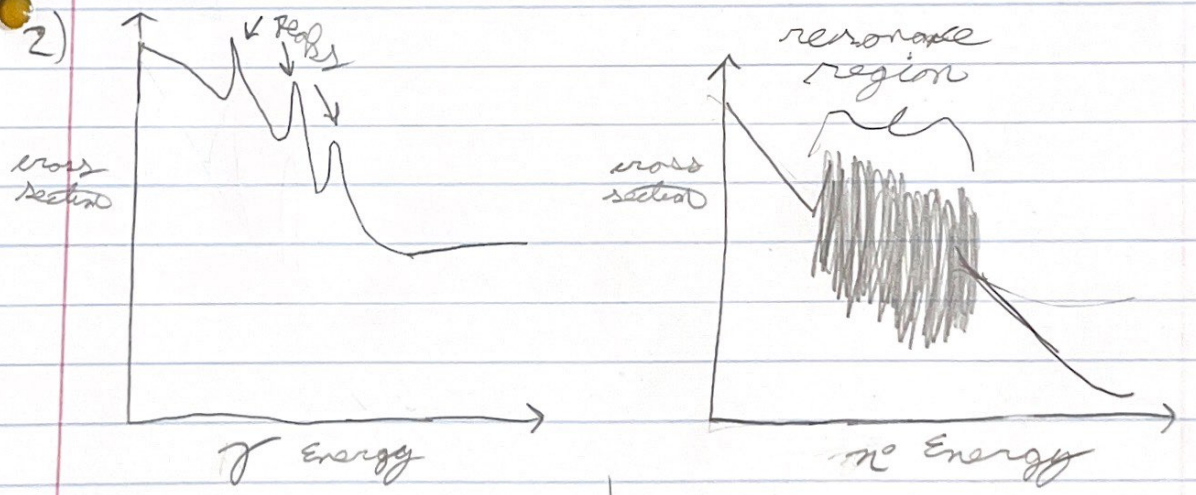
1) Geometric attenuates relies on an increasing surface area of a gaussian surface to reduce the flux at x distance.

$$\Phi(r) = \frac{S_T}{4\pi r^2}$$

material attenuates relies on the particle interacting w/ the material to reduce the flux

$$I = I_0 \exp(-\mu x)$$

2)



peaks correspond to E of electron transition	"peaks" / resonance region for bigger the nucleus

3) 1Ci source of ^{60}Co, flux @ 20 cm?

$$\varphi(r) = \frac{3.7e10\ 1/sec}{4\pi(20)^2} = 7.3609e6 \quad 1/(cm^2 \cdot s)$$