Instructions :
chose two experiments only
- Solve <u>only one of </u>experiments 1 and 2.
- Solve experiment 3.

Exp (1)
1- Discuss the Linear attenuation coefficient experiment and show how the counting rate (R) affected by (Pb) sheets thickness (x).

2-By using the given below data, determine the linear absorption coefficient of the given (Pb) sheets.

X (mm)	N counts/sec.
0	15356
.8	1004
1.6	787
2.4	659
3.2	540
4	538
4.5	486
5.6	433
6.4	330

Exp (2)

1- **Discuss the Mass attenuation coefficient experiment and show how the counting rate (R) affected by (Pb) sheets surface density (ρx).**

2-**By using the given data, determine the mass absorption coefficient of the given (Pb) sheets(note that the density of Pb equal to 11.34 g/cm^3)**

X(mm)	N (counts /sec.)
0	15356
.8	1004
1.6	787
2.4	659
3.2	540
4	538
4.5	486
5.6	433
6.4	330

Exp. 3

(تجربة التربيع العكسي)

● عين شدة قطب مغناطيس روبسون
علما بأن :

$$B_0 = 2.9 \times 10^{-5} T$$

d(cm)	θ_1	θ_2	θ_3	θ_4
7	70	68	65	62
8	65	63	60	58
9	57	59	54	52
10	40	40	55	55
11	50	52	44	43
12	41	43	41	40