clc; clear all;

N=input('Enter the number of point charges:');

P=input('Enter the coordinates of a point at which E to be calculated in the form [x y z]:');

epso=input('Enter the value of permittivity of the medium:');

E=0;

for M=1:N

Q=input('Enter the magnitude of a point charge:');

T=input('Enter the point at which charge is located as [x y z]:');

R=norm(P-T);

EN=Q/(4\*%pi\*epso\*R\*R);

E=E+EN

end

disp('The Resultant Electric Field Intensity =',E,'V/m');