

1. Two point charges +4q and +q are placed 30 cm apart. At what point on the line joining them the electric field is zero?
2. A dipole is placed in a uniform electric field with its axis parallel to the field. What is Torque on it?
3. Two charges 10 × 10−9 C and 20 × 10−9C are placed at the two corners of a equilateral triangles. The length of the arms is 0.03 m. calculate the electric field out the third corner of the triangles.
4. Two equal charges of 10 × 10-5 C are shown in fig below; each produces an electric field at point *P* on Y axis. (a) What is the magnitudes of the fields at *P*? (b) what is direction of field? (c) Find the X and Y components of the field vector.(d) What is the direction of the net field?

P

10cm

● ●

I-------20cm-------I