

6. This problem is solved in exactly the same manner as the previous one, but we must give due regard to the sign on the charge.

$$F = E q$$

$$F = (30 \text{ N / C}) (- 3.0 \text{ C})$$

$$F = - 90 \text{ N}$$

The negative sign indicates that the force is in the opposite direction to the electric field, a result we should expect, because the charge had a negative sign.