Keystone - Chapter 13: Electric Field

A charge of  $+1 \text{ nC} (1 \times 10^{-9} \text{ C})$  and a dipole with charges +9 nC and -9 nC separated by 0.3 mm contribute to a net electric field at location A as shown below. A -3 nC charge is placed, at rest, at point A. Determine the magnitude and direction of an external electric field that is needed in order to keep the -3 nC charge in place.

