

15. The magnitude of the dipole moment is given by $p = qd$, where q is the positive charge in the dipole and d is the separation of the charges. For the dipole described in the problem, $p = (1.60 \times 10^{-19} \text{ C})(4.30 \times 10^{-9} \text{ m}) = 6.88 \times 10^{-28} \text{ C} \cdot \text{m}$. The dipole moment is a vector that points from the negative toward the positive charge.