Questions "EDM"

Note: EDM p = d Q; *e* = 1.6x10^-19 *C*; W = p E cos (Theta)

1. If the electric dipole moment (EDM) of a water molecule is 2x10^-8 *e cm*; what is its value in [*C m*]?
2. If the *effective charge* of the water molecule is Q = 10 *e* (i.e. 10 positive and 10 negative elementary charges); how big is the separation d between them effectively?
3. In a nucleon the maximum possible separation of the positive and the negative charge is about 1 *fm*. Suppose the EDM would be 10^-26 *e cm*; how big a separation d of the charges this would correspond to, if the nucleon were the size of the earth (i.e. 10^22 *fm*)?
4. Given the water molecule EDM of 2x10^-8 and electric field strength of E = 2.5x10^5 *N/C;* what is the amount of work W required to rotate it from parallel to the field lines to perpendicular? If you have, e.g., 10^21 water molecules in a drop, what would be the work W?