

4. a. What is the electric field strength 0.30 m away from a Van de Graaff generator with a charge of $1.2 \mu\text{C}$?

b. What is the force on a $0.1 \mu\text{C}$ test charge at this point (0.30 m from the generator)?

5. Without using your calculator, can you determine the strength of the field at 0.60 m from the same charge (from 4) ... You *should* be able to do this! (Use your calculator to check your estimate.)

6. Two cookie sheets (flat metal plates) are given opposite charges. The left plate has a charge of $+5 \mu\text{C}$ and the right plate has a charge of $-5 \mu\text{C}$. Each plate has an area of 0.90 m^2 (for a *total* of 1.8 m^2) and the plates are separated by a distance of 0.02 m. What is the electric field strength between the plates?