**Answer on question #65236, Physics / Electric Circuits**

**Question**  Ororo Munroe uses her ability to manipulate lightning to electro-cute Mortimer Toynbee.1 She is also sensitive to electric potential and can measure the potential at her location. When she zaps Mortimer, she finds that the potential is $6.50 \cdot 10^5$ V at her position a distance of 4.75 m away from him. Given this information, what is the charge on Mortimer? Treat him like a point Toad.

**Solution**  The charge is

$$Q = rU/k = 4.75 \cdot 6.5 \cdot 10^5/(9 \cdot 10^9) \approx 3.43 \cdot 10^{-4} \, C$$