

## Capacitance Problems

**Show your work and box your answers!**

1. A capacitor that is connected to a 45 V source contains 90 microCoulombs of charge. What is the capacitor's capacitance?
2. A 5.4 microFarad capacitor is charged with 3.4 milliCoulombs. What potential difference exists across it?
3. A 62 picoFarad capacitor is charged when it has 50 microCoulombs of charge on it. What size voltage source is it connected to it?
4. What is the charge in a 15 picoFarad capacitor when it is connected across a 75 V source?
5. A 10 microFarad capacitor is charged to 300 V. How much energy is stored?
6. A 50 picoFarad capacitor is connected to a 9 V battery. How much energy is stored in the capacitor?