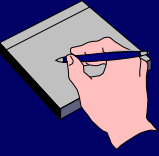# Parallel Practice

A 4 µF capacitor and 6 µF capacitor are connected in parallel and charged to 5 volts. Calculate C_{eq}, and the charge on each capacitor.

$C_{eq} = C_4 + C_6 = 4\ \mu F + 6\ \mu F = 10\ \mu F$

$Q_4 = C_4\ V_4 = (4\ \mu F)(5\ V) = 20\ \mu C$

$Q_6 = C_6\ V_6 = (6\ \mu F)(5\ V) = 30\ \mu C$

$Q_{eq} = C_{eq}\ V_{eq} = (10\ \mu F)(5\ V) = 50\ \mu C = Q_4 + Q_6$

5 V   5 V   V = 5 V   5 V

C_4 C_6 C_{eq}

0 V   0 V   0 V