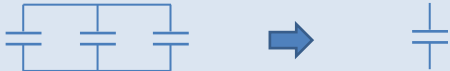


CONCEPT: SOLVING CAPACITOR CIRCUITS

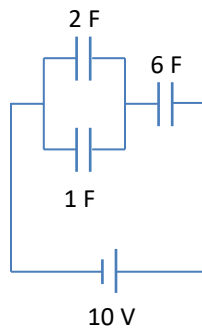
- In Circuit problems, you'll be asked to find CHARGE and VOLTAGE across combinations of capacitors.

SERIES CONNECTION	PARALLEL CONNECTION
- Equivalent Capacitance: $1/C_{eq} = 1/C_1 + 1/C_2 + 1/C_3$ - Share [CHARGE VOLTAGE] with EACH OTHER - Share [CHARGE VOLTAGE] with C_{eq} 	- Equivalent Capacitance: $C_{eq} = C_1 + C_2 + C_3$ - Share [CHARGE VOLTAGE] with EACH OTHER - Share [CHARGE VOLTAGE] with C_{eq} 

STEPS FOR CAPACITOR CIRCUITS

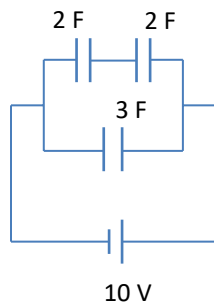
- 1) Find SINGLE EQUIVALENT capacitor
- 2) Find V & Q for C_{eq}
- 3) Work backwards to find V & Q for each capacitor

EXAMPLE: What is the charge and voltage of each of the capacitors in the following circuit?



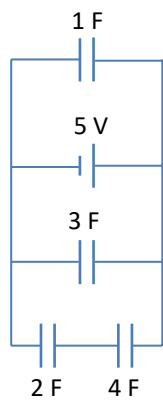
PRACTICE: FIND CHARGE & VOLTAGE IN ALL CAPACITORS

What is charge and voltage across each capacitor below?



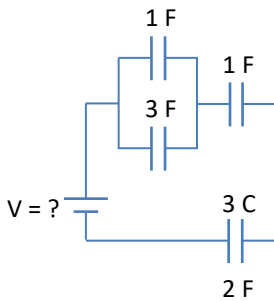
EXAMPLE: FIND CHARGE OF ONE CAPACITOR

What is the charge on the 3 F capacitor below?



PRACTICE: FIND VOLTAGE OF THE BATTERY

What is the voltage of the battery below?



PRACTICE: FIND CHARGE OF CAPACITOR IN A COMPLEX ARRANGEMENT

What is the charge on the 5 F capacitor?

