

When two equal capacitors are connected in parallel the capacitance of the combination is

1. Half that of the individual capacitors
2. The same as that of the individual capacitors
3. 1.4 times that of the individual capacitors
4. Twice that of the individual capacitors
5. Four times that of the individual capacitors

When two equal capacitors are connected in series the capacitance of the combination is

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2. The same as that of the individual capacitors
3. 1.4 times that of the individual capacitors
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When two capacitors are connected in parallel and one has a capacitance ten times that of the other, the capacitance of the combination is

1. Approximately equal to the smaller capacitance
2. Equal to the average of the two capacitances
3. Approximately equal to the larger capacitance
4. Equal to the sum of the two capacitances

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When a DC voltage is first connected across a capacitance

1. Charge flows through the capacitor and the capacitor heats up.
2. Electrons accumulate on one plate and leave the other plate.
3. An initial current flows because there is a spark from one plate to the other.
4. Positively charged protons accumulate on one plate and leave the other plate.
5. The flow of charge through the capacitor increase continuously with time

When a sinusoidal voltage waveform is applied across a capacitor and after the initial transient

1. The magnitude of the current is always greatest when the applied voltage is greatest
2. The magnitude of the current is always greatest when the applied voltage is smallest
3. The electrons that enter one terminal of the capacitor flow through the dielectric and leave through the other terminal.
4. The voltage and current waveforms are always in phase.