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| --- | --- | --- | --- | --- | --- | --- | --- |
| /67 | | | | | | | |
| **Physics 30 - Lesson 18H**  **Resistors and Capacitors**  **Part A** | | | | | | | |
| 1)  / 5 | checkmark | | | checkmark    checkmark  checkmark    checkmark | | | |
| 2)  / 3 |  | | | checkmark  checkmark  checkmark | | | |
| 3)  / 3 |  | | | checkmark    checkmark  checkmark | | | |
| 4)  / 3 |  | | | checkmark  checkmark    checkmark | | | |
| 5)  / 6 |  | | | checkmark  checkmark    checkmark  checkmark  checkmark  checkmark | | | |
| 6)  / 5 |  | | | checkmark    checkmark  checkmark  checkmark  checkmark | | | |
| 7)  / 3 |  | | checkmark  checkmark | | | checkmark | |
| If the separation between the plates doubles, then the energy stored should also double (Keeping all else the same!) | | | | | | |
| **Part B** | | | | | | | |
| 1)  / 4 | checkmark  checkmark  checkmark  checkmark | | | | | | |
| 2)  / 3 |  | | | checkmark    checkmark  checkmark | | | |
| 3)  / 6 | A) | checkmark  checkmark  checkmark | | | | | |
|  | B) | checkmark  checkmark  checkmark | | | | | |
| 4)  / 1 | checkmark  By adding a capacitor in parallel to the circuit, the new capacitance will be | | | | | | |
| 5)  / 3 | To accomplish this, you would have to add a capacitor in series such that:    checkmark  checkmark  checkmark | | | | | | |
| C2  C1  C3  V  6)  / 7 |  | | | | checkmark  checkmark  checkmark  checkmark | | |
|  | checkmark | | | checkmark | | | checkmark |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 7)  / 4 | Maximum  Hook all the capacitors in parallel  checkmark    checkmark  Minimum  Hook all the capacitors in series    checkmark  checkmark | | | |
| 8)  / 7 | C2  C1  C3  50V | | |  |
| A) | checkmark  checkmark | | |
| B) | checkmark  checkmark | checkmark  checkmark  checkmark | |
| 9)  / 4 | checkmark    checkmark  checkmark  checkmark | | | |