

I connect a light bulb of resistance R to a battery of voltage V . It now carries a current I and uses power P . If instead I connect a new light bulb with half the resistance to the same battery, the current in this bulb will be:

- A) $1/4$ as much
- B) $1/2$ as much
- C) unchanged
- D) doubled
- E) quadrupled

I connect a light bulb of resistance R to a battery of voltage V . It now carries a current I and uses power P . If instead I connect a new light bulb with half the resistance to the same battery, the power in this bulb will be:

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- B) $1/2$ as much
- C) unchanged
- D) doubled
- E) quadrupled

I connect a light bulb of resistance R to a battery of voltage V . It now carries a current I and uses power P . If instead I connect the same bulb to a new battery with twice the voltage, the power used by the light bulb will be:

- A) $1/4$ as much
- B) $1/2$ as much
- C) unchanged
- D) doubled
- E) quadrupled