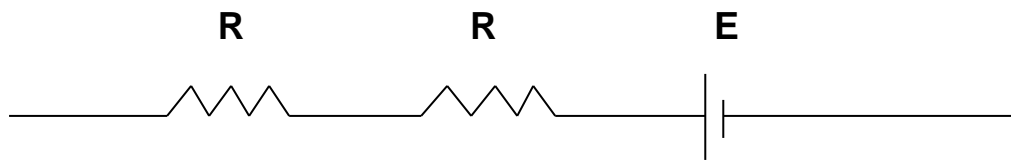


Question #61015, Physics / Electric Circuits

A resistor is connected in series with a battery. If an identical resistor is inserted into the circuit so that the two resistors and the battery are all in series, assuming that the battery itself has a resistance of zero, the power dissipated in the circuit will now be: (select one)

- a. four times the previous value
- b. twice the previous value
- c. half the previous value
- d. a quarter of the previous value
- e. unchanged

Solution



The resistors are connected in series, that is, the same amperage and resistance increases by 2 times.

$$P = 2I^2R$$

Answer the questions:

- b. twice the previous value .