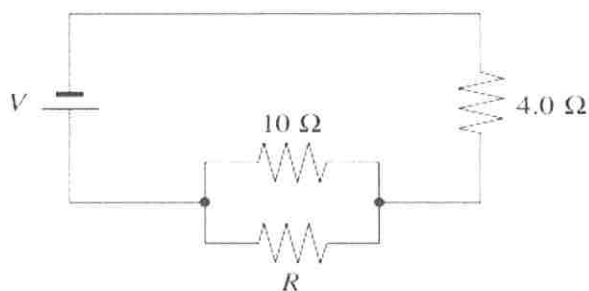


ELECTRIC CIRCUITS 1

1.

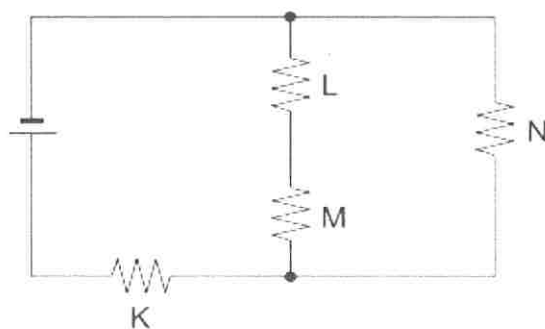
What value of R in the circuit shown below will cause the parallel combination ($10\ \Omega$ and R) to dissipate the same power as the $4.0\ \Omega$ resistor?



- A. $0.26\ \Omega$
- B. $2.9\ \Omega$
- C. $6.0\ \Omega$
- D. $6.7\ \Omega$

2.

All the resistors shown in the circuit have the same resistance value.

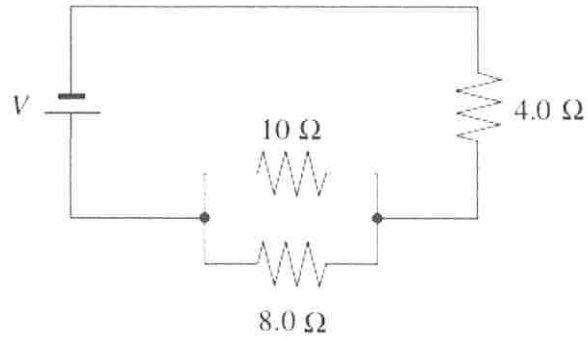


Which resistor dissipates the most heat?

- A. K
- B. L
- C. M
- D. N

3.

3. A resistor is added in parallel to the $4.0\ \Omega$ resistor shown in the diagram below.

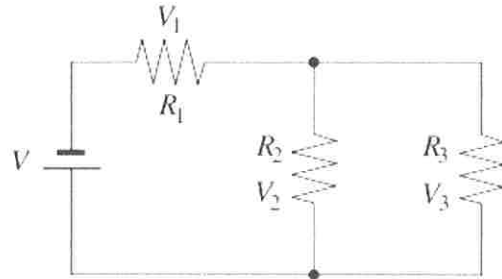


What happens to the power dissipated by the $8.0\ \Omega$ resistor and by the $4.0\ \Omega$ resistor?

	$P_{8.0\ \Omega}$	$P_{4.0\ \Omega}$
A.	decreases	increases
B.	decreases	decreases
C.	increases	increases
D.	increases	decreases

4.

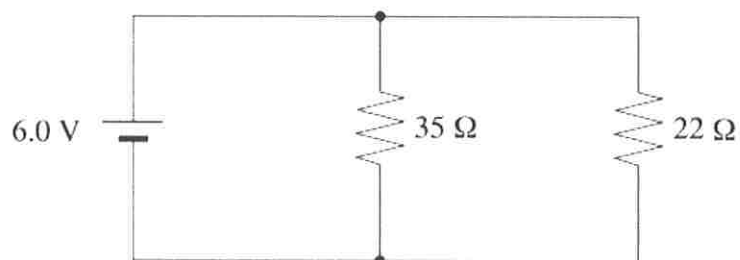
Which of the following statements is true for the electric circuit shown below, regardless of the resistors used?



- A. $V_1 = V_2$
- B. $V = V_2 + V_3$
- C. $V = V_1 + V_3$
- D. $V = V_1 + V_2 + V_3$

5.

What current would be drawn from the power supply in the circuit shown below?



- A. 0.11 A
- B. 0.17 A
- C. 0.27 A
- D. 0.44 A