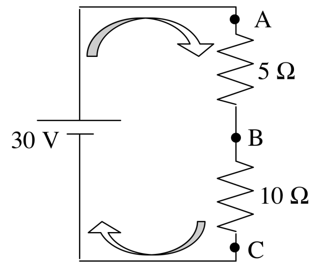
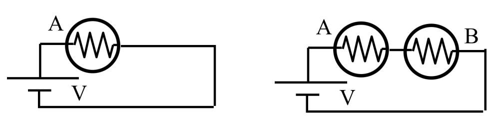
R1=5 Ω, R2=10 Ω. What's the voltage drop across the 10 Ω resistor, i.e. ΔV(BC)?

A: 30 V
B: 20 V
C: 15 V
D: 10 V
E: 0 V



We start with the left circuit with bulb (A).

If we add a second bulb (B) as shown on the right, what happens to bulb A?
A) Bulb A is equally bright as it was before.
B) Bulb A is dimmer than it was before
C) Bulb A is brighter than it was before

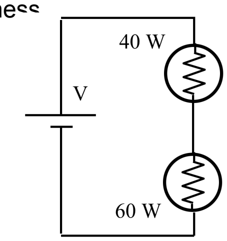


A household 40W light bulb and a 60W light bulb each has a filament with a certain resistance (when the bulb is on and hot).
How do the resistances of the filaments compare?

A: $R_{40W} = R_{60W}$.
B: $R_{40W} > R_{60W}$
C: $R_{40W} < R_{60W}$
D: Need more info.

These two bulbs are now put in *series*. (which is not a normal thing to do) Which bulb glows brighter?

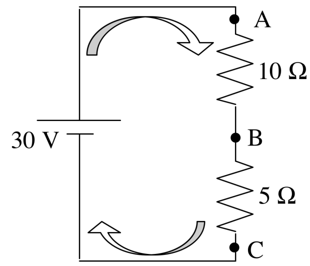
A: both have same brightness
B: “40W” is brighter
C: “60W” is brighter
D: Not enough info



Hints: More power = brighter.
When light bulbs are ***in series***, they have the same current.
Light bulbs are intended to operate at 120V.

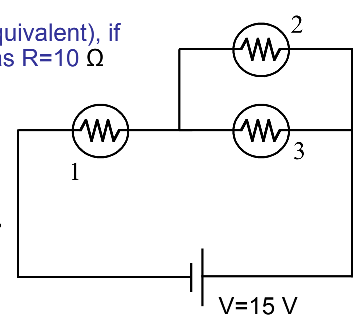
R1=10 Ω, R2=5Ω. What's the voltage drop across the 10 Ω, i.e. ΔV(AB)?

A: 30 V
B: 20 V
C: 15 V
D: 10 V
E: 0 V

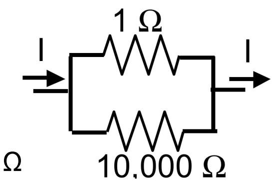


What is R(equivalent), if each bulb has R=10 Ω

A) 30 Ω
B) 20 Ω
C) 15 Ω
D) 10 Ω
E) Other/??



A 1Ω resistor is placed in parallel with a 10,000 Ω resistor as shown.



The total, equivalent resistance of these two resistors in parallel is...

A: a little less than 1 Ω

B: a little more than 1 Ω.

C: about 5000 Ω

D: a little less than 10,000 Ω

E: a little more than 10,000 Ω

Power=energy/time

So, energy = power*time

1 J = 1W * 1 second

= 1 W s

1 kW hr costs about $0.10 in Colorado.
If you leave a 100 W bulb on all day (24 hours), about how much did that cost?

A) Completely negligible, not even 1 cent!
B) couple of cents
C) about a quarter
D) couple of bucks
E) None of these is even close