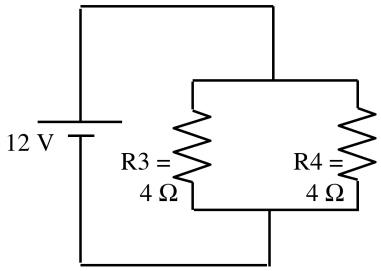
What is the current flowing through R3?

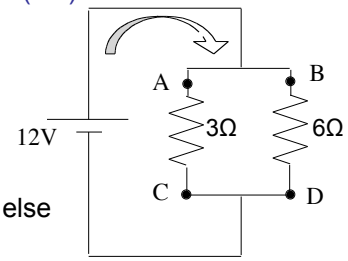
A: 1.5 A
B: 2 A
C: 3 A
D: 4 A
E: 6 A



CT 29.12d'

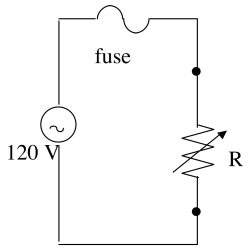
What's the voltage drop across the 3Ω resistor, i.e. ΔV(AC)?

A: 12 V
B: 8 V
C: 6 V
D: 3 V
E: something else

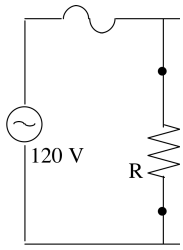


This circuit has a fuse and a variable resistor R.
If the resistance of R suddenly goes DOWN, is the fuse (or “circuit breaker”)....

A: More likely to trip
B: Less likely to trip



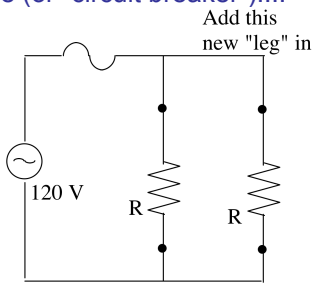
If we start with a circuit with one resistor (R),



If we start with a circuit with one resistor (R), and then add a second identical resistor (R) in *parallel*, is the fuse (or "circuit breaker")....

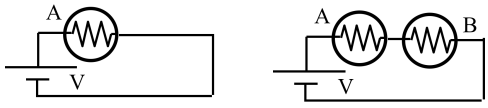
A: more
B: less
C: equally

...likely to trip (than before the new leg was added)



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



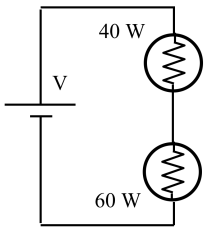
A household 40W light bulb and a 60W light bulb each has a filament with a certain resistance (when the bulb is on and hot).

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