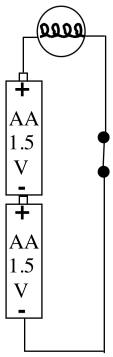
In the circuit shown, the bulb…

A: has 1.5 V across it, & glows
B: has 3 V across it, & glows
C: has 3 V across it, & is dark
D: has 0 V across it, & is dark
E: has 0 V across it, &glows



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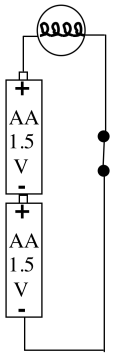
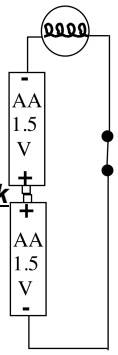


What if I reverse one battery?
Now the bulb…

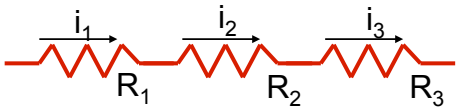
A: has 1.5 V across it, & glows
B: has 3 V across it, & glows
C: has 3 V across it, & is dark
D: has 0 V across it, & is dark
E: has 0 V across it, &glows



Compare the power dissipated by a bulb (powered by one battery) if we swap out a 1.5 V and replace it with a 3 V battery. The power:

A) Stays the same
B) Doubles
C) Quadruples
D) Something else!
E) ??

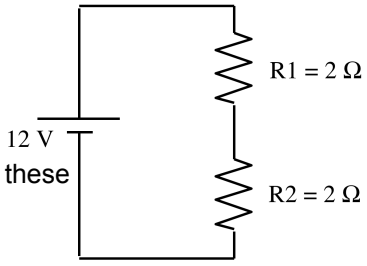
Take the case where
R1 = 5 Ω, R2 = 10 Ω, and R3 = 20 Ω
If i_1 = 5.0 A, what are the other currents?



A) i2 = 10 A, i3 = 20 A
B) i2 = 2.5 A, i3 = 1.25 A
C) i2 = 1.25 A, i3 = 0.30 A
D) i2 = 0.0 A, i3 = 0.0 A
E) None of the above answers.

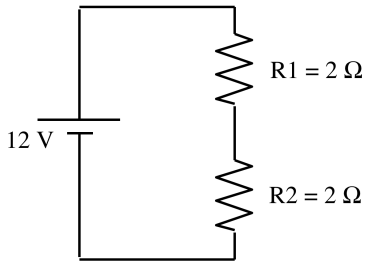
What is the "equivalent resistance" of this circuit?

A: 1 Ω
B: 2 Ω
C: 3 Ω
D: 4 Ω
E: None of these



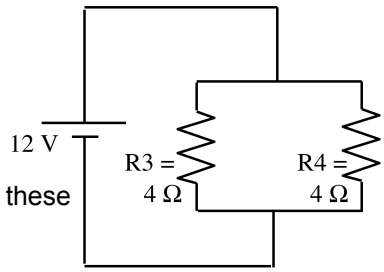
What is the current flowing through R2?

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



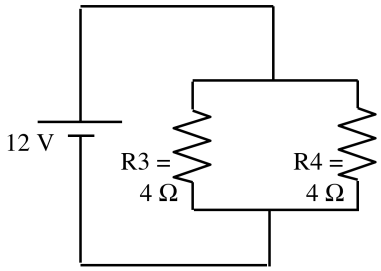
What is the equivalent resistance for this circuit?

A: 0.5 Ω
B: 2 Ω
C: 4 Ω
D: 8 Ω
E: None of these



What is the current flowing through R3?

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



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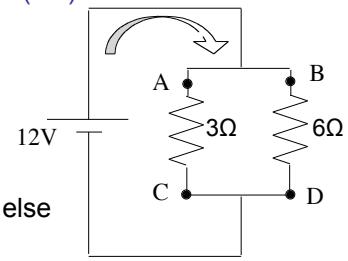
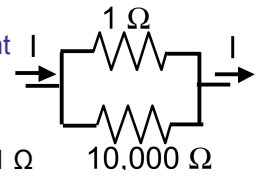
What's the voltage drop across the 3Ω resistor, i.e. ΔV(AC)?

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



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.

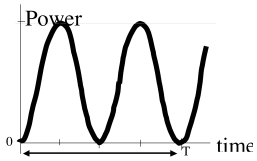
C: about 5000 Ω

D: a little less than 10,000 Ω

E: a little more than 10,000 Ω

AC:
Alternating Current

A 100 W (average power) light bulb is plugged into a normal (120 V RMS, 60 Hz, AC) socket. What is the *peak* power output to the bulb?



A) 50 W
B) 100 W
C) 200 W
D) Something else
E) ??