

Is it possible to light a bulb with a battery using only one wire?

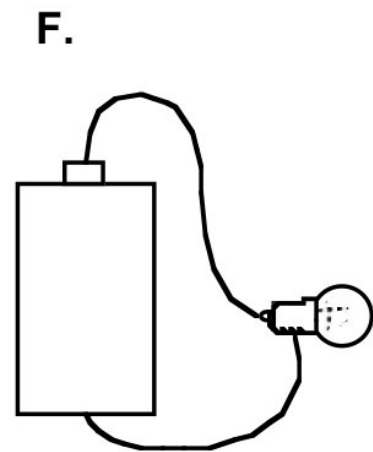
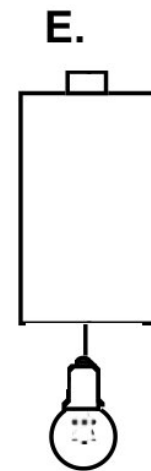
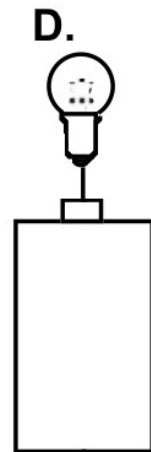
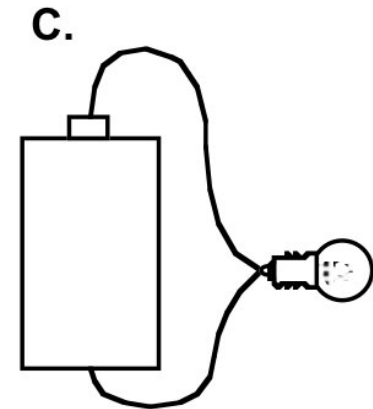
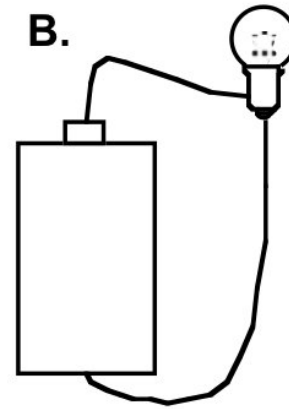
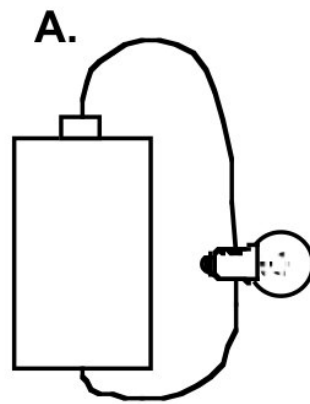


- A. Yes
- B. No
- C. I have no idea

# Which of the arrangements shown will light the bulb?



1. Only A
2. Only B
3. Only C
4. Only D
5. Only E
6. Only F
7. A & C
8. B & F
9. D & E

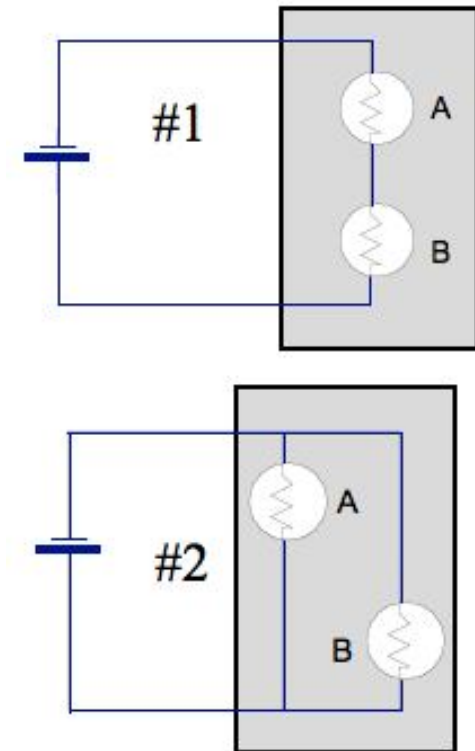




In the two cases shown here a battery is connected up to a box containing some identical bulbs. The battery maintains a constant potential difference  $\mathcal{V}_0$  across its terminals.

Which bulbs will be brighter?

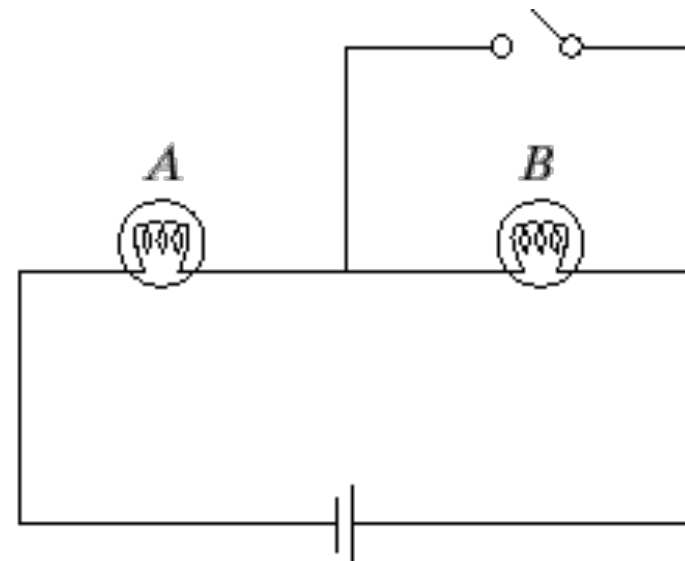
1. A in #1
2. B in #1
3. A and B in #1 (equal)
4. A in #2
5. B in #2
6. A and B in #2 (equal)
7. All 4 equal
8. Other





This circuit has two identical light bulbs burning with equal brightness and a single 12 V battery. When the switch is closed, the brightness of bulb A

- A. increases
- B. decreases
- C. decreases to 0
- D. remains the same





This circuit has two identical light bulbs burning with equal brightness and a single 12 V battery. When the switch is closed, the brightness of bulb B

- A. increases
- B. decreases
- C. decreases to 0
- D. remains the same

