- What is the voltage drop of a circuit with a resistance of 500 Ω that has a current of 1.4A flowing through it.

- A 3-V battery sends a current of 0.10A through a light bulb. What is the resistance of the filament of the bulb?

V
IR

$V = IR$
$= (1.4)(500)$
$= 700\ V$

$R = V \div I$
$= 3 \div 0.10$
$= 30\ \Omega$

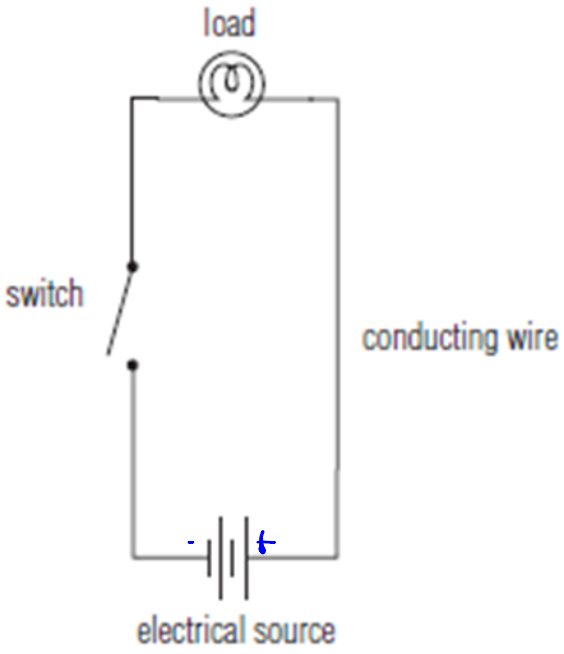
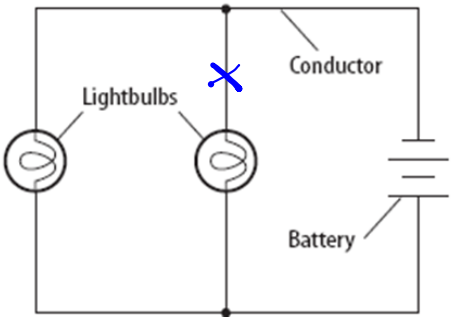
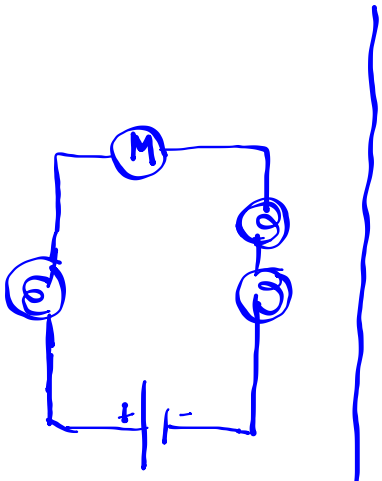
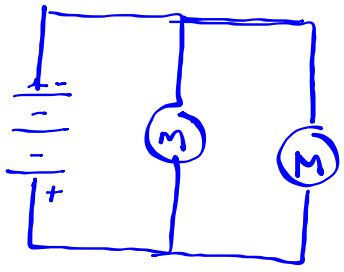



**Figure 11.26** The four basic parts of a circuit

**Figure 18**
**In parallel circuits, the current follows more than one path.** *How will the voltage difference compare in each branch?*



| Test # Bulb # → | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Test #1 | OFF | X | LIT | LIT |
| Test #2 | X | OFF | LIT | LIT |
| Test #3 | LIT | LIT | OFF | LIT |
| Test #4 | X | OFF | OFF | X |
| Test #5 | OFF | OFF | LIT | LIT |
| Test #6 | X | X | X | OFF |
| Test #7 | OFF | X | OFF | X |