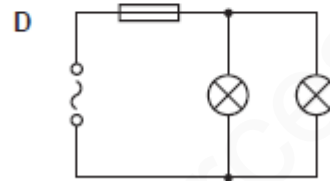
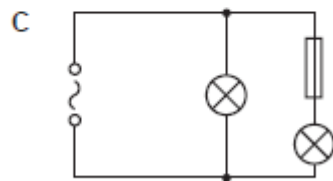
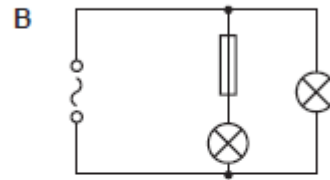
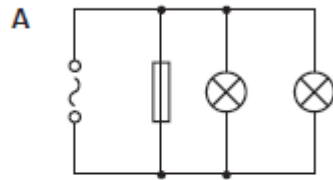


FUSE-CIRCUIT BREAKERS-SET-1

1

A student makes four circuits.

In which circuit are both lamps protected by the fuse?



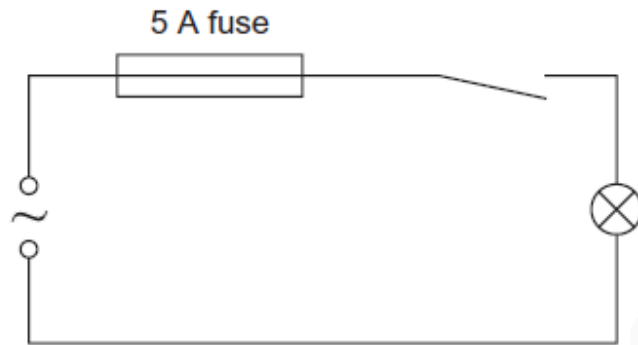
2

Which statement is correct?

- A** A fuse is included in a circuit to prevent the current becoming too high.
- B** A fuse should be connected to the neutral wire in a plug.
- C** An electric circuit will only work if it includes a fuse.
- D** An earth wire is needed to prevent the fuse blowing.

3

A student makes the circuit shown.



The fuse has blown and stopped the current.

What could have caused this?

- A The current rating of the fuse was too high.
- B The current was too large.
- C The lamp was loose.
- D The voltage was too small.

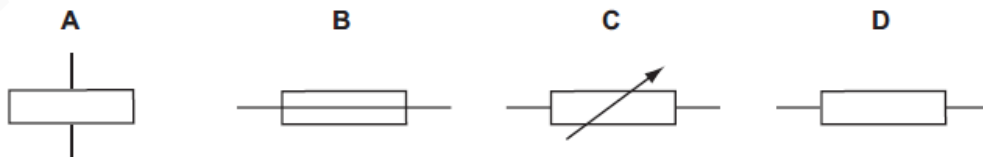
4

Why is a fuse used in an electrical circuit in a house?

- A to increase the circuit resistance
- B to keep the power used to a minimum value
- C to prevent a short-circuit from occurring
- D to stop the cables from carrying too much current

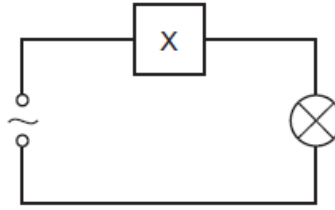
5

What is the symbol for a fuse?



6

The device X in this circuit is designed to cut off the electricity supply automatically if too much current flows.



What is device X?

- A** a fuse
- B** a switch
- C** a resistor
- D** an ammeter

7

The diagram shows a fire.

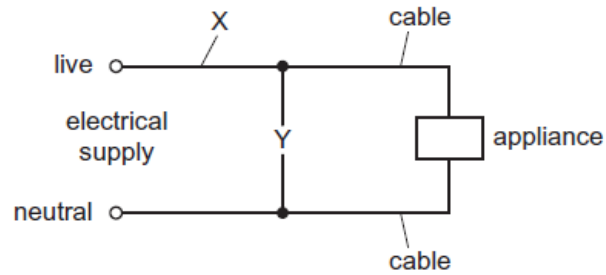


Why does the smoke rise above the fire?

- A** Smoke evaporates more quickly at higher temperatures.
- B** Smoke molecules diffuse more quickly at higher temperatures.
- C** The density of the air is lower at higher temperatures.
- D** The pressure of the air is greater at higher temperatures.

8

Either a fuse or a circuit-breaker can be used to protect electrical cables from large currents that could cause overheating.



If a fuse is used, in which position in the circuit should it be connected, and if a circuit-breaker is used, in which position should it be connected?

	position of fuse	position of circuit-breaker
A	X	X
B	X	Y
C	Y	X
D	Y	Y

9

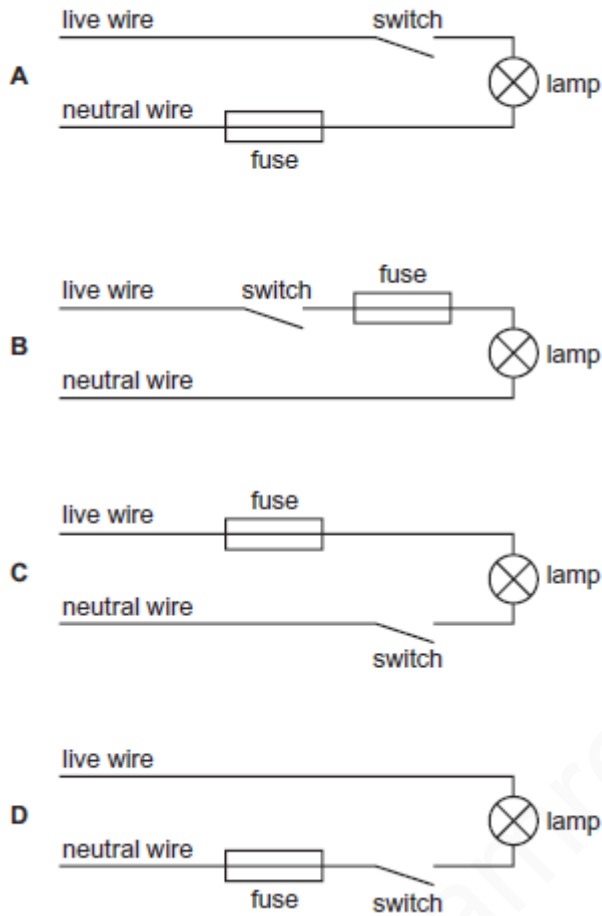
The current in a lamp at full brightness is 0.25 A. The flexible cable to the lamp is designed for currents up to 5.0 A, so it can safely carry the 0.25 A taken by the lamp.

Which fuse should be inserted in the plug at the other end of the flexible cable?

- A** 0.2A **B** 1.0A **C** 5.0A **D** 10.0A

10

Which diagram shows the correct positions for both the switch and the fuse?



11

After some building work in a house, a bare (uninsulated) live wire is left protruding from a wall.

What is the greatest hazard?

- A** a fire
- B** a fuse will blow
- C** an electric shock
- D** no current will flow