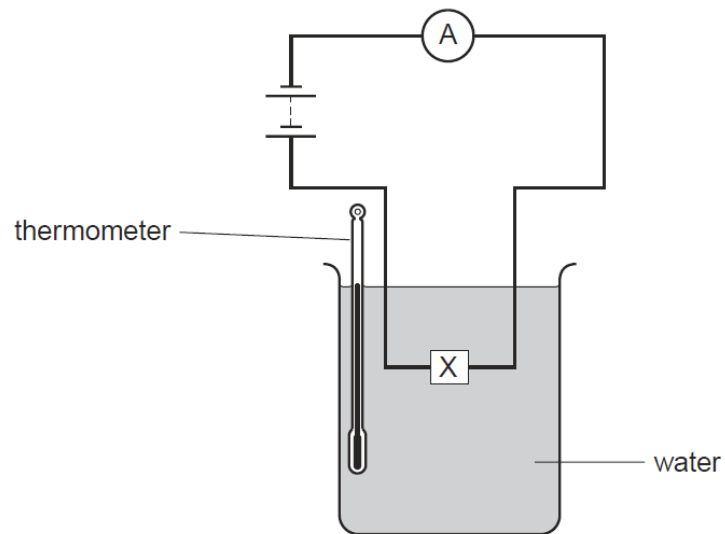


LDR-THERMISTOR-SET-1

1

An electrical component X is placed in water, as shown.



When the temperature of the water is increased, the reading on the ammeter increases.

What is component X?

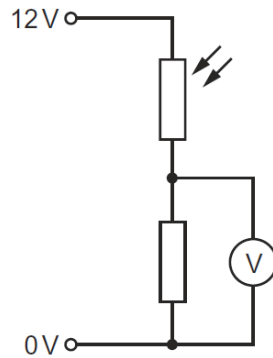
- A** a capacitor
- B** a light-dependent resistor
- C** a reed relay
- D** a thermistor

MS-1

D

2

The diagram shows part of an electric circuit.



The light falling on the light-dependent resistor (LDR) increases in brightness.

What happens to the resistance of the LDR and what happens to the reading on the voltmeter?

	resistance of LDR	reading on voltmeter
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

MS-2

B

3

P and Q are the circuit symbols for two electrical components.



Which components are represented by P and by Q?

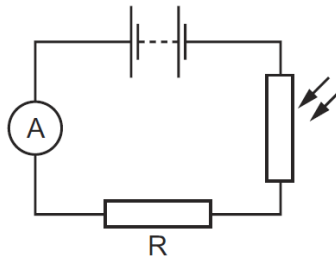
	P	Q
A	thermistor	fuse
B	thermistor	relay
C	variable resistor	fuse
D	variable resistor	relay

MS-3

A

4

A light-dependent resistor (LDR) and a resistor R are connected in a series circuit. Light falls on the LDR.



The brightness of the light falling on the LDR decreases.

What happens to the resistance of the LDR and what happens to the reading on the ammeter?

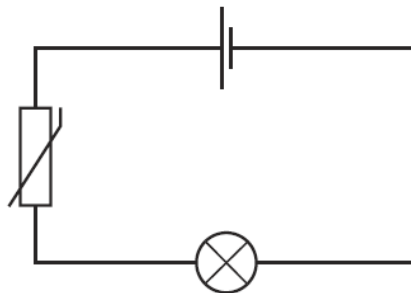
	resistance of LDR	reading on ammeter
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

MS-4

C

5

When the thermistor in the circuit below is heated, the current in the lamp increases.



Why does this happen?

- A** The resistance of the lamp decreases.
- B** The resistance of the lamp increases.
- C** The resistance of the thermistor decreases.
- D** The resistance of the thermistor increases.

MS-5

C

6

The diagram shows an electrical component.



What is it?

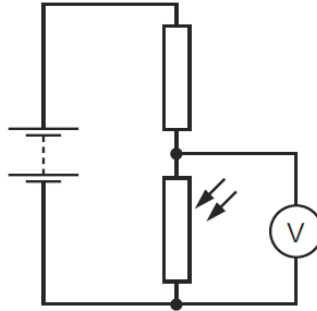
- A** a capacitor
- B** a light-dependent resistor
- C** a thermistor
- D** a variable resistor

MS-6

B

7

The diagram shows a circuit with a fixed resistor connected in series with a light-dependent resistor (LDR). A voltmeter is connected across the LDR.



A bright lamp shines light onto the LDR. The lamp is then switched off and this causes the voltmeter reading to change.

Which row shows the change in the resistance of the LDR and the change in the voltmeter reading when the lamp is switched off?

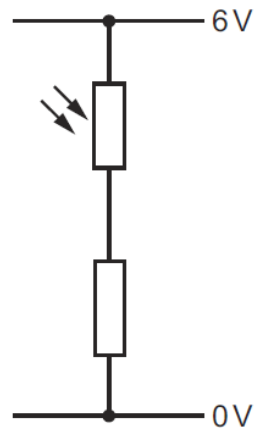
	resistance of LDR	voltmeter reading
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

MS-7

A

8

The diagram shows a potential divider.



When brighter light falls on the light-dependent resistor (LDR), its resistance changes.

What happens to the resistance of the LDR and what happens to the current in it?

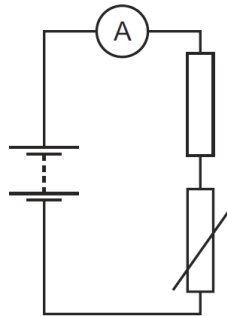
	resistance of LDR	current in LDR
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

MS-8

B

9

The diagram shows a circuit with a fixed resistor connected in series with a thermistor and an ammeter.



Which row shows how temperature change affects the resistance of the thermistor and the current in the circuit?

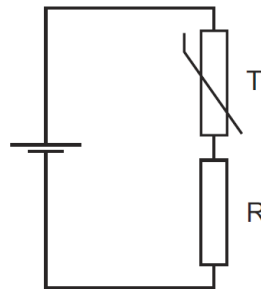
	temperature	resistance of thermistor	current in circuit
A	decreases	decreases	increases
B	decreases	increases	decreases
C	increases	decreases	decreases
D	increases	increases	increases

MS-9

B

10

The circuit diagram shows a fixed resistor R and a thermistor T used in a potential divider circuit.



V_R and V_T are the potential differences across R and T respectively.

What happens to V_R and to V_T as the temperature of the thermistor decreases?

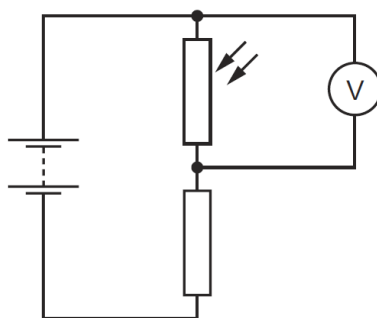
	V_R	V_T
A	decreases	increases
B	increases	decreases
C	stays the same	decreases
D	stays the same	increases

MS-10

A

11

The diagram shows a light-dependent resistor (LDR) connected in a potential divider circuit.



The brightness of the light falling on the LDR is increased.

Which row shows what happens to the resistance of the LDR, and what happens to the reading on the voltmeter?

	resistance of LDR	reading on voltmeter
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

MS-11

A