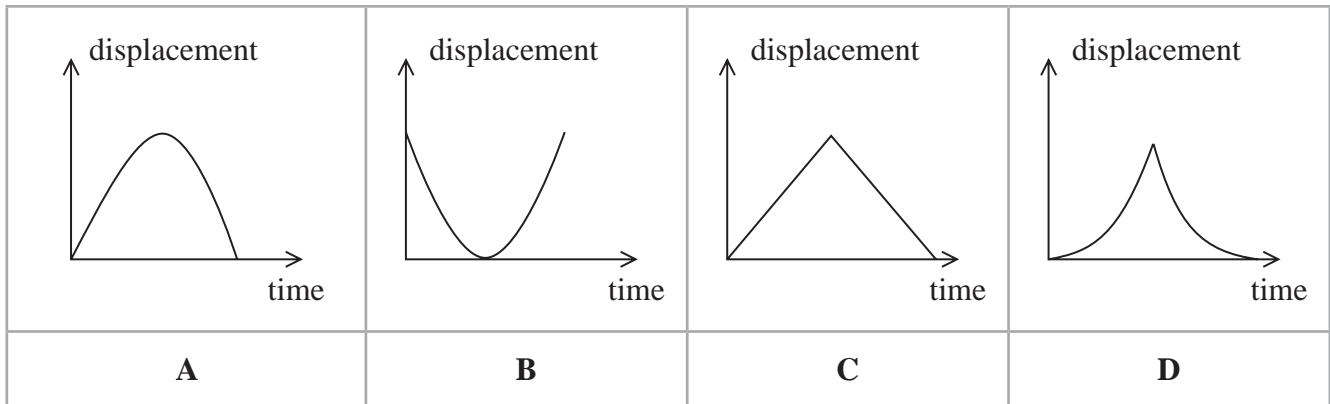


1 A ball is dropped, bounces once and is then caught.

Which of the following is the correct displacement-time graph for the ball?



A

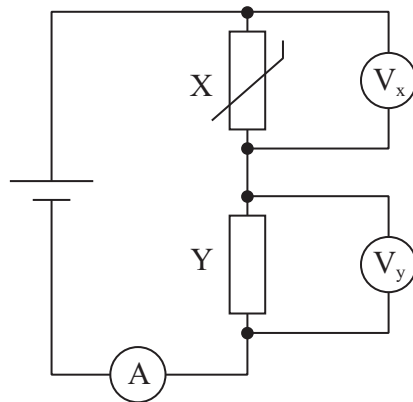
B

C

D

(Total for Question = 1 mark)

2 The diagram shows a potential divider circuit that contains a negative temperature coefficient thermistor.



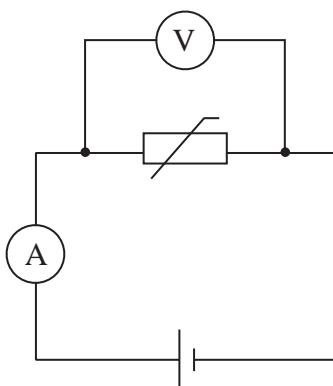
The temperature of the room containing the circuit increases.

Select the row of the table that correctly shows the changes in readings on the meters.

	V_x	V_y	A
<input checked="" type="checkbox"/> A	decrease	increase	decrease
<input checked="" type="checkbox"/> B	decrease	increase	increase
<input checked="" type="checkbox"/> C	increase	decrease	decrease
<input checked="" type="checkbox"/> D	increase	decrease	increase

(Total for Question 1 mark)

- 3 A negative temperature coefficient thermistor is connected as shown in the circuit diagram.

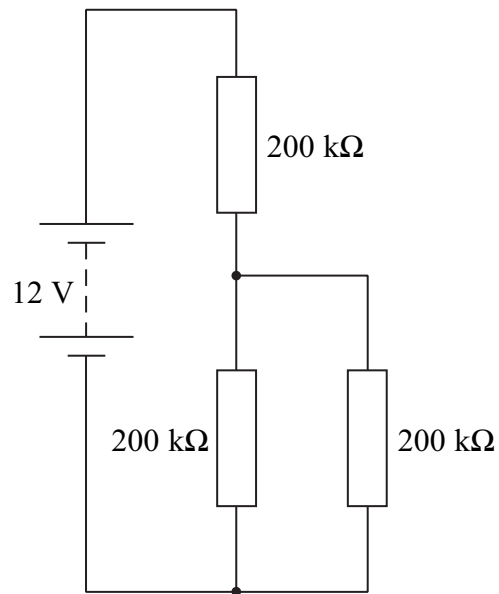


The cell has a negligible internal resistance. The effect of decreasing the temperature of the thermistor is that the

- A ammeter reading will decrease.
- B ammeter reading will increase.
- C voltmeter reading will decrease.
- D voltmeter reading will increase.

(Total for Question = 1 mark)

4 The battery in the circuit has negligible internal resistance and an e.m.f. of 12 V.

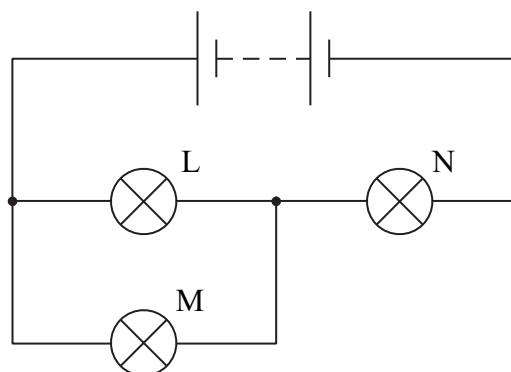


The potential difference across the parallel combination is

- A 0 V
- B 4 V
- C 6 V
- D 8 V

(Total for Question 1 mark)

- 5 In the circuit shown, the battery has negligible internal resistance. L, M and N are identical lamps.

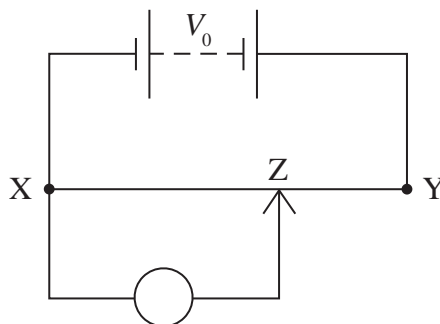


The filament of lamp M breaks. Identify the row of the table which shows the resulting changes in the brightness of lamps L and N.

		Lamp L	Lamp N
<input checked="" type="checkbox"/>	A	increases	stays the same
<input checked="" type="checkbox"/>	B	stays the same	decreases
<input checked="" type="checkbox"/>	C	decreases	increases
<input checked="" type="checkbox"/>	D	increases	decreases

(Total for Question 1 mark)

- 6 The diagram shows a uniform wire XY across which a potential difference V_0 is applied.



Which of the following correctly shows the output potential difference across XZ?

- A $V = \frac{XY}{XZ} V_0$
- B $V = \frac{XZ}{XY} V_0$
- C $V = \frac{XZ}{ZY} V_0$
- D $V = \frac{ZY}{XY} V_0$

(Total for Question = 1 mark)