





















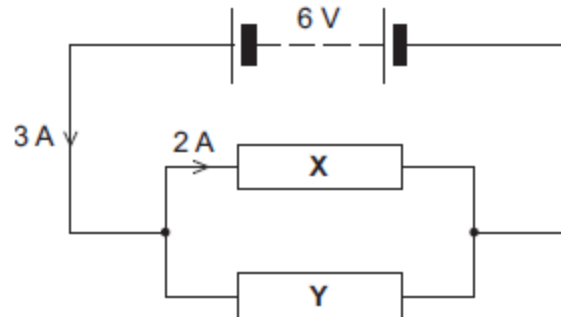


(b) **Figure 2** shows a circuit containing a 6 V battery.

Two resistors, **X** and **Y**, are connected in parallel.

The current in some parts of the circuit is shown.

**Figure 2**



(i) What is the potential difference across **X**?

Potential difference across **X** = \_\_\_\_\_ V

(1)

(ii) Calculate the resistance of **X**.

\_\_\_\_\_

\_\_\_\_\_

Resistance of **X** = \_\_\_\_\_  $\Omega$

(2)

(iii) What is the current in **Y**?

Current in **Y** = \_\_\_\_\_ A

(1)

(iv) Calculate the resistance of **Y**.

\_\_\_\_\_

Resistance of **Y** = \_\_\_\_\_  $\Omega$

(1)

(v) When the temperature of resistor **X** increases, its resistance increases.

What would happen to the:

- potential difference across **X**
- current in **X**
- total current in the circuit?

Tick (✓) **three** boxes.

	Decrease	Stay the same	Increase
Potential difference across <b>X</b>			
Current in <b>X</b>			
Total current in the circuit			

(3)

(Total 9 marks)