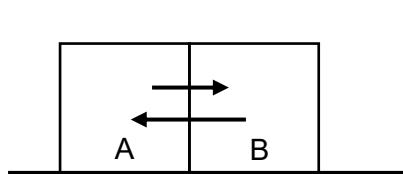
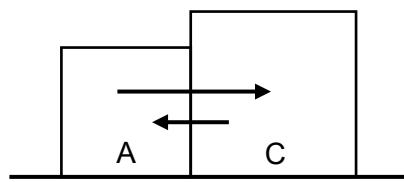


**13**

Object A is at room temperature of  $25^{\circ}\text{C}$ . Objects B and C are of unknown temperature and placed in contact with A separately as shown below.



Situation 1



Situation 2

The arrows represent the input and the output of thermal energy for each object just after being placed in contact.

The length of each arrow corresponds to the quantity of energy transferred.

What are the initial temperatures of B and C?

object B

object C

**A**

above  $25^{\circ}\text{C}$

above  $25^{\circ}\text{C}$

**B**

above  $25^{\circ}\text{C}$

below  $25^{\circ}\text{C}$

**C**

below 25°C

above 25°C

**D**

below 25°C

below 25°C