

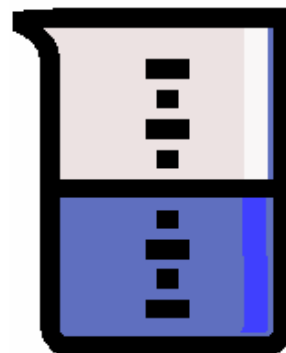
If we have different amounts of the same kinds of materials at different temperatures and put them together, what happens?

The resulting temperature will settle down to be

1. pretty close to $40\text{ }^{\circ}\text{C}$
2. pretty close to $80\text{ }^{\circ}\text{C}$
3. pretty close to $20\text{ }^{\circ}\text{C}$
4. greater than $80\text{ }^{\circ}\text{C}$
5. less than $20\text{ }^{\circ}\text{C}$



100 g of water at $80\text{ }^{\circ}\text{C}$



200 g of water at $20\text{ }^{\circ}\text{C}$