

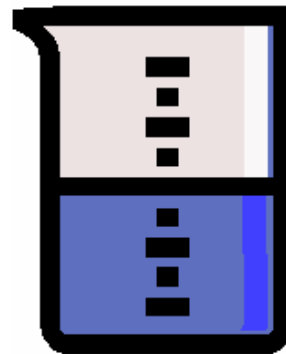
If we have equal amounts of the same kinds of materials at different temperatures and put them together, what happens?

The resulting temperature will settle down to be

1. pretty close to  $50\text{ }^{\circ}\text{C}$
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  $20\text{ }^{\circ}\text{C}$



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



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