**Thermal Equilibrium Pre-Lab**

Predict the value of the equilibrium temperature in each situation.

Specific Heat Capacity of Water: 4180 J/kg∙K

1. 100g of water at 100°C is mixed with 100g of water at 0°C.
2. 25g of water at 32°C is mixed with 120g of water at 12°C.
3. 150g of water at 75°C is mixed with 60g of water at 20°C.
4. 50g of water at 35°C is mixed with 80g of water at 50°C.

Find the Specific Heat Capacity of the unknown object.

1. A 22g object that is 100°C is put into 70g of water at 20°C. If the final temperature of the water is 35°C, what is the specific heat capacity of the object?