Thermal Energy worksheet

1.	How many joules of heat are given off when 70 grams of water at 70 $^{\circ}$ C is cooled to 20 $^{\circ}$ C?
2.	What is the final temperature when 80 grams of 80° C water is poured into a container with 20 grams of 20° C water?
3.	What is the final temperature when 350 grams of iron at 300° C is placed in a 75 gram aluminum calorimeter containing 250 grams of water at a temperature of 30° C?
4.	How many joules of heat must be absorbed by 350 grams of 0° C ice so that it is converted to 0° C water?