Name _____   Period _____   Date _____

Thermal Energy – Ch. 5

1. For each pair of substances, circle the substance with more thermal energy and explain why.

    a. 500 g of water at 35°C vs. 500 g of water at 85°C

    b. 500 g of water at 35°C vs. 250 g of water at 35°C

2. For each pair of substances, circle the substance that will take more energy to heat from 20°C to 100°C and explain why.

    a. 30 g of water vs. 300 g of water

    b. 500 g of iron vs. 500 g of silver

3. Explain why a can of soda from the refrigerator feels cold in your hand.

4. How much heat must be absorbed by a 500 g pot of water in order to raise the temperature from 20°C to 30°C?

GIVEN	WORK	ANSWER

5. A hot 0.25-kg piece of iron is placed in a calorimeter containing room temperature water. How much heat is lost by the iron as it cools from 125°C to 75°C?

GIVEN	WORK	ANSWER

6. How much heat is gained by the water in #5?