

CALCULATIONS:

NAME: \_\_\_\_\_

Show all the work, use significant figures in your answer.

$$Q = mc\Delta T$$

Specific Heat (c) of water = 4.186 J/g°C      or 1.00 cal/g°C

**22.**

Calculate the heat energy in calories absorbed by 35 grams of water that warms from 20.0°C to 70.0°C.

**23.**

25.0 grams of mercury is heated from 25°C to 155°C, and absorbs 455 joules of heat in the process. Calculate the specific heat capacity of mercury.

**24.**

Calculate the heat energy in calories lost when 125.0 grams of water is cooled from 40°C to 10.0°C.

**25.**

If a sample of chloroform is initially at 25°C, what is its final temperature if 150.0 g of chloroform absorbs 1000.0 Joules of heat, and the specific heat of chloroform is 0.96 J/g°C?