

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 1.0 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.

1750 Calories
* 1800 Calories

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.

.14 J
g°C

24.

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

3,750 calories

* 4,000 calories

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?

32°C