

Dec 5 Hwk

1. Convert 5.25 cal to Cal

Answer: 0.00525 Cal

2. Convert 5.25 cal to J

Answer: 22.0 J

3. Convert 10.5 J to KJ

Answer: 0.0105 KJ

4. Convert 10.2 KJ to Cal

Answer 2.44 Cal

0.0265 KJ

5. X The temperature of 40.0 grams of ethanol increases from 50.0 °C to 80.0 °C. How much heat is absorbed by the ethanol? The specific heat for ethanol is 2.44 J/(g °C)

Answer: 2930 J

6. The temperature of a sample of a metal with a mass of 15.0 g is changed from 55.5 °C to 72.5 °C when it absorbs 125 J of heat. Calculate the specific heat of the metal.

Answer: 0.490 J/(g °C)

A 10.0 gram sample of pure gold absorbs 355 J of heat. What was the final temperature of the gold if the initial temperature was 50.0 °C? The specific heat for gold is 0.129 J/(g °C)

Answer: 325 °C