Calorimetry Problems

1. How many calories of heat are required to raise the temperature of 1.00 kg of water from 10.2°C to 26.8°C.
2. How much heat is released when 275 grams of water cools from 85.2°C to 38.4°C? Express your answer in kj.
3. What temperature change will 100.0mL of water undergo when it absorbs 1365 joules of heat?
4. What will the change in temperature be if 1772 joules of heat is absorbed by 80.0mL of water?
5. What will the final temperature be if 45.0mL of water at 15.4°C absorbs 1.050×10^3 joules of heat?

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1. How many calories of heat are required to raise the temperature of 1.00 kg of water from 10.2°C to 26.8°C.

1. How much heat is released when 275 grams of water cools from 85.2°C to 38.4°C? Express your answer in kcal.

1. What temperature change will 100.0mL of water undergo when it absorbs 325 calories of heat?

1. What will the change in temperature be if 422 calories of heat is absorbed by 80.0mL of water?

1. What will the final temperature be if 45.0mL of water at 15.4°C absorbs 2.50×10^2 calories of heat?

1. What will the final temperature be if 688 calories of heat is released by 25mL of water with an initial temperature of 80.0°C?

1. A quantity of water is heated from 25.0°C to 36.4°C by absorbing 325 calories. What is the mass of the water?

1. What is the mass of a sample of water that is heated from 10.0°C to 24.6°C while absorbing 1.00 kcal?

1. What is the specific heat of lead if a 30.0g of lead undergoes a 250°C change while absorbing 229.5 calories?

1. A 1.00×10^3 g block of aluminum releases 6.450×10^3 calories as it cools from 55.0°C to 25.0°C. what is the specific heat of aluminum?

6. What will the final temperature be if 688 calories of heat is released by 25mL of water with an initial temperature of 80.0°C?
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8. What is the mass of a sample of water that is heated from 10.0°C to 24.6°C while absorbing 1.00 kcal?

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