PQ 12 Heat

Q

Q1

- How much heat must be absorbed by 375 grams of water to raise its temperature by 25° C?

Q2

- What mass of water can be heated from 25.0° C to 50.0° C by the addition of 2825 J?

Q3

- What is the final temperature when 625 grams of water at 75.0° C loses 7.96 x 10^4 J?

Q4

- A 65.0 g piece of iron at 525° C is put into 635 grams of water at 15.0° C. What is the final temperature of the water and the iron?

Q5

- It takes 487.5 J to heat 25 grams of copper from 25 °C to 75 °C. What is the specific heat in Joules/g·°C?

Q6

- The temperature of a piece of Metal X with a mass of 95.4g increases from 25.0°C to 48.0°C as the metal absorbs 849 J of heat. What is the specific heat of Metal X?

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Q7

- When 435 J of heat is added to 3.4 g of olive oil at 21°C, the temperature increases to 85°C. What is the specific heat of the olive oil?

Q8

- A piece of stainless steel with a mass of 1.55 g absorbs 141 J of heat when its temperature increases by 178°C. What is the specific heat of the stainless steel?

Q9

- How many kilojoules of heat are absorbed when 1.00 L of water is heated from 18°C to 85°C?

Q10

- A piece of aluminum with a mass of 100.0 g has a temperature of 20.0°C. It absorbs 1100 J of heat energy. What is the final temperature of the metal?