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•	A calorimeter, consisting of an insulated coffee cup containing 50.0 g of water at $21.0 ^{\circ}\text{C}$, has a total heat capacity of $9.4 ^{\circ}\text{J}$ K ⁻¹ . When a $30.4 ^{\circ}\text{g}$ sample of an alloy at $92.0 ^{\circ}\text{C}$ is placed into the calorimeter, the final temperature of the system is $31.2 ^{\circ}\text{C}$. What is the specific heat capacity of the alloy?		Mark 3
		Answer:	