

HEAT FORMULA

Name _____

Part B: Solving the Heat Formula for other pieces

B.1 When 1,500 joules of energy is lost from a 1.277-kilogram object, the temperature decreases from 45°C to 40°C. What is the specific heat of this object? Of what material is the object made?

Looking For	Formula	
Already Know		
Answer as equation <i>with unit</i> :		

B.2 What is the specific heat of a material that gains 600 joules of energy when a 0.25-kilogram object increases in temperate by 3°C? What is this material?

Looking For	Formula	
Already Know		
Answer as equation <i>with unit</i> :		

B.3 A liquid with a specific heat of 1,900 J/kg·°C has 4,750 joules of heat energy is added to it. If the temperature increases from 20°C to 30°C, what is the mass of the liquid?

B.4 What is the mass of a block of concrete that gains 52,800 joules of energy when its temperature is increased by 5°C?

Looking For	Formula	
Already Know		
Answer as equation <i>with unit</i> :		

B.5 A scientist wants to raise the temperature of a 0.10-kilogram sample of glass from 15°C to 45°C. How much heat energy is required to produce this change in temperature?

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Looking For	Formula	
Already Know		
Answer as equation <i>with unit</i> :		

B.6 A 0.25-kilogram sample of aluminum is provided with 5,000 joules of heat energy. What will be the change in temperature of this sample of aluminum?

Looking For	Formula	
Already Know		
Answer as equation <i>with unit</i> :		

B.7 What is the change in temperature for a 2-kilogram mass of water that loses 8,500 joules of energy?

Looking For	Formula	
Already Know		
Answer as equation <i>with unit</i> :		