- 1. What is thermochemistry?
- A. The study of the relationship between heat and chemical reactions
- B. The study of the relationship between heat and physical changes
- C. The study of the relationship between heat and energy
- D. The study of the relationship between heat and temperature
- 2. What is the most important factor that determines the amount of heat released or absorbed in a chemical reaction?
- A. The nature of the reactants
- B. The amount of reactants
- C. The rate of the reaction
- D. The temperature of the reaction
- 3. What is the unit for heat?
- A. Joules
- B. Calories
- C. Kilojoules
- D. Kilocalories
- 4. What is the first law of thermodynamics?
- A. Energy can be neither created nor destroyed, but it can be converted from one form to another
- B. The universe is constantly expanding
- C. The entropy of the universe is always increasing
- D. The speed of light is constant
- 5. What is the second law of thermodynamics?
- A. Energy can be neither created nor destroyed, but it can be converted from one form to another
- B. The universe is constantly expanding
- C. The entropy of the universe is always increasing
- D. The speed of light is constant
- 6. What is the standard enthalpy of formation of a substance?
- A. The heat released when one mole of a substance is formed from its elements in their standard states
- B. The heat released when one mole of a substance is formed from its elements in their standard states at 25 degrees Celsius
- C. The heat released when one mole of a substance is formed from its elements in their standard states at 1 atmosphere pressure
- D. The heat released when one mole of a substance is formed from its elements in their standard states at 1 mole per liter concentration
- 7. What is the standard enthalpy of combustion of a substance?
- A. The heat released when one mole of a substance is burned in oxygen at 25 degrees Celsius
- B. The heat released when one mole of a substance is burned in oxygen at 1 atmosphere pressure
- C. The heat released when one mole of a substance is burned in oxygen at 1 mole per liter concentration
- D. The heat released when one mole of a substance is burned in oxygen

- 8. What is the standard enthalpy of reaction?
- A. The heat released or absorbed when one mole of a substance reacts
- B. The heat released or absorbed when one mole of a substance reacts at 25 degrees Celsius
- C. The heat released or absorbed when one mole of a substance reacts at 1 atmosphere pressure
- D. The heat released or absorbed when one mole of a substance reacts at 1 mole per liter concentration
- 9. What is the heat of fusion of a substance?
- A. The heat released when one mole of a substance melts
- B. The heat released when one mole of a substance melts at 25 degrees Celsius
- C. The heat released when one mole of a substance melts at 1 atmosphere pressure
- D. The heat released when one mole of a substance melts at 1 mole per liter concentration
- 10. What is the heat of vaporization of a substance?
- A. The heat released when one mole of a substance vaporizes
- B. The heat released when one mole of a substance vaporizes at 25 degrees Celsius
- C. The heat released when one mole of a substance vaporizes at 1 atmosphere pressure
- D. The heat released when one mole of a substance vaporizes at 1 mole per liter concentration
- 11. What is the heat of condensation of a substance?
- A. The heat released when one mole of a substance condenses
- B. The heat released when one mole of a substance condenses at 25 degrees Celsius
- C. The heat released when one mole of a substance condenses at 1 atmosphere pressure
- D. The heat released when one mole of a substance condenses at 1 mole per liter concentration
- 12. What is the heat of solution of a substance?
- A. The heat released when one mole of a substance dissolves
- B. The heat released when one mole of a substance dissolves at 25 degrees Celsius
- C. The heat released when one mole of a substance dissolves at 1 atmosphere pressure
- D. The heat released when one mole of a substance dissolves at 1 mole per liter concentration
- 13. What is the heat of neutralization of a substance?
- A. The heat released when one mole of a substance is neutralized
- B. The heat released when one mole of a substance is neutralized at 25 degrees Celsius
- C. The heat released when one mole of a substance is neutralized at 1 atmosphere pressure
- D. The heat released when one mole of a substance is neutralized at 1 mole per liter concentration
- 14. What is the heat of precipitation of a substance?
- A. The heat released when one mole of a substance precipitates
- B. The heat released when one mole of a substance precipitates at 25 degrees Celsius
- C. The heat released when one mole of a substance precipitates at 1 atmosphere pressure

- D. The heat released when one mole of a substance precipitates at 1 mole per liter concentration
- 15. What is the heat of sublimation of a substance?
- A. The heat released when one mole of a substance sublime
- B. The heat released when one mole of a substance sublime at 25 degrees Celsius
- C. The heat released when one mole of a substance sublime at 1 atmosphere pressure
- D. The heat released when one mole of a substance sublime at 1 mole per liter concentration
- 16. What is the heat of reaction?
- A. The heat released or absorbed when one mole of a substance reacts
- B. The heat released or absorbed when one mole of a substance reacts at 25 degrees Celsius
- C. The heat released or absorbed when one mole of a substance reacts at 1 atmosphere pressure
- D. The heat released or absorbed when one mole of a substance reacts at 1 mole per liter concentration
- 17. What is the heat of solution?
- A. The heat released when one mole of a substance dissolves
- B. The heat released when one mole of a substance dissolves at 25 degrees Celsius
- C. The heat released when one mole of a substance dissolves at 1 atmosphere pressure
- D. The heat released when one mole of a substance dissolves at 1 mole per liter concentration
- 18. What is the heat of neutralization?
- A. The heat released when one mole of a substance is neutralized
- B. The heat released when one mole of a substance is neutralized at 25 degrees Celsius
- C. The heat released when one mole of a substance is neutralized at 1 atmosphere pressure
- D. The heat released when one mole of a substance is neutralized at 1 mole per liter concentration
- 19. What is the heat of precipitation?
- A. The heat released when one mole of a substance precipitates
- B. The heat released when one mole of a substance precipitates at 25 degrees Celsius
- C. The heat released when one mole of a substance precipitates at 1 atmosphere pressure
- D. The heat released when one mole of a substance precipitates at 1 mole per liter concentration
- 20. What is the heat of sublimation?
- A. The heat released when one mole of a substance sublime
- B. The heat released when one mole of a substance sublime at 25 degrees Celsius
- C. The heat released when one mole of a substance sublime at 1 atmosphere pressure
- D. The heat released when one mole of a substance sublime at 1 mole per liter concentration
- 1. What is thermochemistry?

- A. The study of the relationship between heat and chemical reactions
- B. The study of the relationship between heat and physical changes
- C. The study of the relationship between heat and energy
- D. The study of the relationship between heat and temperature
- 2. What is the most important factor that determines the amount of heat released or absorbed in a chemical reaction?
- A. The nature of the reactants
- B. The amount of reactants
- C. The rate of the reaction
- D. The temperature of the reaction
- 3. What is the unit for heat?
- A. Joules
- B. Calories
- C. Kilojoules
- D. Kilocalories
- 4. What is the first law of thermodynamics?
- A. Energy can be neither created nor destroyed, but it can be converted from one form to another
- B. The universe is constantly expanding
- C. The entropy of the universe is always increasing
- D. The speed of light is constant
- 5. What is the second law of thermodynamics?
- A. Energy can be neither created nor destroyed, but it can be converted from one form to another
- B. The universe is constantly expanding
- C. The entropy of the universe is always increasing
- D. The speed of light is constant
- 6. What is the standard enthalpy of formation of a substance?
- A. The heat released when one mole of a substance is formed from its elements in their standard states
- B. The heat released when one mole of a substance is formed from its elements in their standard states at 25 degrees Celsius
- C. The heat released when one mole of a substance is formed from its elements in their standard states at 1 atmosphere pressure
- D. The heat released when one mole of a substance is formed from its elements in their standard states at 1 mole per liter concentration
- 7. What is the standard enthalpy of combustion of a substance?
- A. The heat released when one mole of a substance is burned in oxygen at 25 degrees Celsius
- B. The heat released when one mole of a substance is burned in oxygen at 1 atmosphere pressure
- C. The heat released when one mole of a substance is burned in oxygen at 1 mole per liter concentration
- D. The heat released when one mole of a substance is burned in oxygen
- 8. What is the standard enthalpy of reaction?

- A. The heat released or absorbed when one mole of a substance reacts
- B. The heat released or absorbed when one mole of a substance reacts at 25 degrees Celsius
- C. The heat released or absorbed when one mole of a substance reacts at 1 atmosphere pressure
- D. The heat released or absorbed when one mole of a substance reacts at 1 mole per liter concentration
- 9. What is the heat of fusion of a substance?
- A. The heat released when one mole of a substance melts
- B. The heat released when one mole of a substance melts at 25 degrees Celsius
- C. The heat released when one mole of a substance melts at 1 atmosphere pressure
- D. The heat released when one mole of a substance melts at 1 mole per liter concentration
- 10. What is the heat of vaporization of a substance?
- A. The heat released when one mole of a substance vaporizes
- B. The heat released when one mole of a substance vaporizes at 25 degrees Celsius
- C. The heat released when one mole of a substance vaporizes at 1 atmosphere pressure
- D. The heat released when one mole of a substance vaporizes at 1 mole per liter concentration
- 11. What is the heat of condensation of a substance?
- A. The heat released when one mole of a substance condenses
- B. The heat released when one mole of a substance condenses at 25 degrees Celsius
- C. The heat released when one mole of a substance condenses at 1 atmosphere pressure
- D. The heat released when one mole of a substance condenses at 1 mole per liter concentration
- 12. What is the heat of solution of a substance?
- A. The heat released when one mole of a substance dissolves
- B. The heat released when one mole of a substance dissolves at 25 degrees Celsius
- C. The heat released when one mole of a substance dissolves at 1 atmosphere pressure
- D. The heat released when one mole of a substance dissolves at 1 mole per liter concentration
- 13. What is the heat of neutralization of a substance?
- A. The heat released when one mole of a substance is neutralized
- B. The heat released when one mole of a substance is neutralized at 25 degrees Celsius
- C. The heat released when one mole of a substance is neutralized at 1 atmosphere pressure
- D. The heat released when one mole of a substance is neutralized at 1 mole per liter concentration
- 14. What is the heat of precipitation of a substance?
- A. The heat released when one mole of a substance precipitates
- B. The heat released when one mole of a substance precipitates at 25 degrees Celsius
- C. The heat released when one mole of a substance precipitates at 1 atmosphere pressure
- D. The heat released when one mole of a substance precipitates at 1 mole per liter concentration

- 15. What is the heat of sublimation of a substance?
- A. The heat released when one mole of a substance sublime
- B. The heat released when one mole of a substance sublime at 25 degrees Celsius
- C. The heat released when one mole of a substance sublime at 1 atmosphere pressure
- D. The heat released when one mole of a substance sublime at 1 mole per liter concentration
- 16. What is the heat of reaction?
- A. The heat released or absorbed when one mole of a substance reacts
- B. The heat released or absorbed when one mole of a substance reacts at 25 degrees Celsius
- C. The heat released or absorbed when one mole of a substance reacts at 1 atmosphere pressure
- D. The heat released or absorbed when one mole of a substance reacts at 1 mole per liter concentration
- 17. What is the heat of solution?
- A. The heat released when one mole of a substance dissolves
- B. The heat released when one mole of a substance dissolves at 25 degrees Celsius
- C. The heat released when one mole of a substance dissolves at 1 atmosphere pressure
- D. The heat released when one mole of a substance dissolves at 1 mole per liter concentration
- 18. What is the heat of neutralization?
- A. The heat released when one mole of a substance is neutralized
- B. The heat released when one mole of a substance is neutralized at 25 degrees Celsius
- C. The heat released when one mole of a substance is neutralized at 1 atmosphere pressure
- D. The heat released when one mole of a substance is neutralized at 1 mole per liter concentration
- 19. What is the heat of precipitation?
- A. The heat released when one mole of a substance precipitates
- B. The heat released when one mole of a substance precipitates at 25 degrees Celsius
- C. The heat released when one mole of a substance precipitates at 1 atmosphere pressure
- D. The heat released when one mole of a substance precipitates at 1 mole per liter concentration
- 20. What is the heat of sublimation?
- A. The heat released when one mole of a substance sublime
- B. The heat released when one mole of a substance sublime at 25 degrees Celsius
- C. The heat released when one mole of a substance sublime at 1 atmosphere pressure
- D. The heat released when one mole of a substance sublime at 1 mole per liter concentration
- 1. What is thermochemistry?
- A. The study of the relationship between heat and chemical reactions
- B. The study of the relationship between heat and physical changes
- C. The study of the relationship between heat and energy

- D. The study of the relationship between heat and temperature
- 2. What is the most important factor that determines the amount of heat released or absorbed in a chemical reaction?
- A. The nature of the reactants
- B. The amount of reactants
- C. The rate of the reaction
- D. The temperature of the reaction
- 3. What is the unit for heat?
- A. Joules
- B. Calories
- C. Kilojoules
- D. Kilocalories
- 4. What is the first law of thermodynamics?
- A. Energy can be neither created nor destroyed, but it can be converted from one form to another
- B. The universe is constantly expanding
- C. The entropy of the universe is always increasing
- D. The speed of light is constant
- 5. What is the second law of thermodynamics?
- A. Energy can be neither created nor destroyed, but it can be converted from one form to another
- B. The universe is constantly expanding
- C. The entropy of the universe is always increasing
- D. The speed of light is constant
- 6. What is the standard enthalpy of formation of a substance?
- A. The heat released when one mole of a substance is formed from its elements in their standard states
- B. The heat released when one mole of a substance is formed from its elements in their standard states at 25 degrees Celsius
- C. The heat released when one mole of a substance is formed from its elements in their standard states at 1 atmosphere pressure
- D. The heat released when one mole of a substance is formed from its elements in their standard states at 1 mole per liter concentration
- 7. What is the standard enthalpy of combustion of a substance?
- A. The heat released when one mole of a substance is burned in oxygen at 25 degrees Celsius
- B. The heat released when one mole of a substance is burned in oxygen at 1 atmosphere pressure
- C. The heat released when one mole of a substance is burned in oxygen at 1 mole per liter concentration
- D. The heat released when one mole of a substance is burned in oxygen
- 8. What is the standard enthalpy of reaction?
- A. The heat released or absorbed when one mole of a substance reacts
- B. The heat released or absorbed when one mole of a substance reacts at 25 degrees

Celsius

- C. The heat released or absorbed when one mole of a substance reacts at 1 atmosphere
- D. The heat released or absorbed when one mole of a substance reacts at 1 mole per liter concentration
- 9. What is the heat of fusion of a substance?
- A. The heat released when one mole of a substance melts B. The heat released when one mole