

1. What is thermodynamics?

2. In the 18th century, scientists thought heat was an invisible fluid called _____. They thought it flowed like water from hot to cold.

3. State the first law of thermodynamics:

4. Energy added to a system can do one or both of what two things?
 - 1) _____
 - 2) _____

5. The process of compression and expansion of a gas so that no heat enters or leaves a system is said to be an _____ process.

6. How much does the temperature of air change every 1 km in elevation? (*figure 24.*)

7. State the second law of thermodynamics:

8. According to the second law of thermodynamics, draw an arrow showing the direction the heat will flow in the following two scenarios.

9. What is a heat engine? How does on work?

10. What do we get from a heat engine that is useful?

11. What is entropy?