

8. Correct. The answer is true. The first law of thermodynamics requires that the total amount of energy in an isolated system always remains constant.

Dennis Overby jocularly notes the following about the principal laws of thermodynamics: There are four laws. The third of them, the second law was recognized first. The first the zeroth law was formulated last. The first law was second. The third law might not even be a law in the same sense of the others. In briefest terms, the second law states that a little energy is always wasted. You can't have a perpetual motion device because no matter how efficient it will always lose energy and eventually run down. The first law says that you can't create energy and the third that you can't reduce temperatures to absolute zero. They are sometimes referred to as

1. You can't win.
2. You can't break even.
3. You can't even get out of the game.

For numerous variations of the laws of thermodynamics see
<http://www.humanthermodynamics.com/>