Chemistry 0 Unit 3 Lesson 2 Homework
Assigned on 03/07/2021   Due date: 03/13/2021

1. Temperature is a measure of the average kinetic energy of particles of matter. It is a measure of how fast the particles are moving around in a substance. A higher temperature means that there is more energy, so particles are able to move faster. If you want to convert a Celsius temperature into Kelvin, you just add the number 273.5 to the Celsius temperature. For example, a normal temperature is considered to be about $25\,^0C$. That temperature in Kevin is $25\,^0C + 273.15 = 298.15$ K.

   Please calculate the Kelvin temperatures for the freezing point of water and boiling point of water.

2. Are 100 grams of potatoes and 100 grams of marshmallows the same size? Do they have different densities? If so, which has the greater density?

3. One bottle labels it has 100 mg of vitamin A in each tablet. Another bottle says it has 0.01 g of vitamin A in each tablet. Which bottle of the tablet contains more vitamin A?

4. Please write scientific notation for each of the following numbers:

   a. The speed of light in a vacuum 300,000,000 m/s.

   b. The number of feet in a mile is 5,280 ft.

   c. Average size of grass pollen is 0.000025 meters.