**Module 4 – SHM: Quiz 1b**

1. Determine the frequency for each of the following:
   1. An atom vibrates 2.5 x 1010 times in 5.0 seconds
   2. A sound wave from a guitar string has a period of 3.3 x 10-3 seconds.
2. Find the period for each of the following:
   1. A pendulum swings back and forth 20 times in 15 seconds.
   2. The moon travels around the Earth six times in 164.8 days.
3. For a particle executing SHM according to x(t) = 2 sin(3.0 πt):
   1. Where is the particle at the start of the experiment?
   2. What equations would describe the velocity and acceleration of this particle?
   3. What is the maximum speed of the particle?

Answers:

1. Answers Below
   1. 5.0 x 109 Hz
   2. 3.0 x 102 Hz
2. Answers Below
   1. 0.75 s
   2. 27.3 days
3. Remember to put your calculator in Radians!
   1. 



* 1. 



* 1. +/- 6 π