1) The position ($x$) of an object is described with respect to time ($t$) by the following equation: $x = 2t^3 - 15t^2 + 36t - 8$. Answer the following questions...
   a) If $x$ has a unit of meters and $t$ has a unit of seconds, what are the units of the coefficients in the equation ($2, 15, 36, \& 8$)
   b) Write out an expression for the velocity of the object with respect to time.
   c) Write out an expression for the acceleration of the object with respect to time.
   d) At what point (or points) in time is the velocity of the object zero?
   e) At each of those points (from part d above), is the acceleration positive, negative, or zero?
   f) During what intervals of time is the velocity of the object positive?
   g) During what intervals of time is the acceleration of the object positive?

2) The position of an oscillating object is described by the equation: $x = 3\cos(2t+1)$.
   a) Write out an expression for the velocity of the object with respect to time.
   b) Write out an expression for the acceleration of the object with respect to time.