Refer to the posted notes for reference. If you still can't figure out a question after reading the notes, email me for help. I usually reply emails within 8 hours. Please complete all assigned questions before next Wednesday.

1. Solve for x.

   (a) $6 - x = 6$

   (b) $4 = 10 + x$

   (c) $3x + 5 = 17$

   (d) $6x + 8 = 2x$

   (e) $5x + 15 = 0$

   (f) $x^2 = 4$

2. Solve for x.

   (a) $x + 10 > 5$

   (b) $3x > 21$

   (c) $y < 6 + y$

   (d) $-5y \leq 25$

   (e) $y < 2y$

   (f) $|y| > 0$

3. P, Q are two points on the graph of a linear function. Find the function in its standard form.

   (a) $P = (0, 4)$, $Q = (1, 3)$

   (b) $P = (5, 1)$, $Q = (10, 4)$

4. Graph the functions in question 3 if you haven't done so. If you did, good for you.

5. 1 mole is 6.02×10^{23} counts of something. Usually in Chemistry, this 'something' is particles.

   (a) Write down a function that intakes the number of particles and returns (outputs) the number of moles. (Hint: this is a very, very simple linear function)

   (b) The atomic mass of an oxygen atom is approximately $16g/mol$. Write the total mass of the oxygen atoms as a function of the number of the oxygen atoms.

6. The position(x) of an object can be described as the initial position (x_0) plus the product of the velocity (v) of the object and the time (t) the object has travelled.
   Assuming x_0, v are constants. Write down the linear fucntion. $x(t)$

7. Bonus!!
   Graph the functions from the answers to 5 (a) and 5 (b).