The Mole Webquest

Part 1:

Use the following website to answer this set of questions:

http://antoine.frostburg.edu/chem/senese/101/moles/faq/why-use-moles.shtml

1) A mole of anything is how many of that thing? (give the number):

2) Why is it that different amounts of things can still equal one mole? (think about the weight of a dozen elephants vs a dozen eggs)

3) Why do we want to use the concept of moles?

4) Once we know the number of moles we can convert to the number of: _____ or _____ and vice versa.

5) How many grams of water are in one mole of water?

6) How many molecules of water are in one mole of water?

Use the following website to answer the next set of questions:
http://chemistry.about.com/od/workedchemistryproblems/a/molegramconvert.htm

7) What is the formula for the atomic weight (weight of one mole) of CO_2 ?

8) What is the formula used to go from 454 grams of CO2 to moles of CO2? How many moles do you get?

9) YOU TRY (not on the website)
   a. What is the atomic weight of one mole of CH_4?
   b. How many moles in 64 grams of CH_4?

10) What is the formula to determine the mass in grams of 3.6 mols of H_2SO_4?

11) YOU TRY (not on website)
   a. What is the mass in grams of 4.2 mols of FeO_2?

Part 2:

Use the following website to answer the next set of questions:
https://chemfiesta.wordpress.com/2015/02/06/mole-calculations-3/
Scroll down to "solving a 2 part chemistry problem"

12) What are the steps needed to convert 22 grams of copper to atoms of copper. Please write them out (include T charts)

12)YOU TRY: How many atoms are there in 34 grams of Lithium? Show your work!!!!!!!

Part 3:

Go to the following websites and answer the next set of questions:

http://en.wikipedia.org/wiki/Amedeo_Avogadro
http://en.wikipedia.org/wiki/Avogadro%27s_law

13)What is Avogadro's full name?

14)Originally, what profession was Avogadro?

15)In 1811 Avogadro wrote a paper that clearly distinguished a _____ from a _____.

16)What is Avogadro's Principle?

17)List one crazy fact about Avogadro's number.