

Use any resource at your disposal to answer these questions. Please bring these to class on Feb. 2nd.

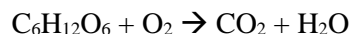
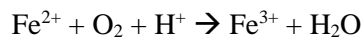
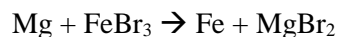
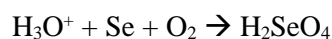
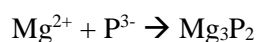
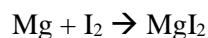
1. Determine the symbol, number of protons, neutrons and electrons for each neutral atom listed below.

ISOTOPE	SYMBOL	PROTONS	NEUTRONS	ELECTRONS
Cadmium-113				
Lead-208				
Arsenic-95				
Mercury-202				
Barium-138				

2. How many electrons do each of the following ions have?



3. Write the condensed electron configuration for each elements from Problem 1. Mercury and Lead are tougher than the others – they involve the f orbitals. Please refer to the Khan Academy videos for a review.
4. Determine how many **valence** electrons are present in each element in problem 1.
5. Determine how many **valence** electrons are present in each ion in problem 2.
6. Balance each of the reactions below:



7. Barium is used in medicine. Determine how it is used. Submit your answer to this online.