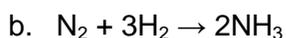


Complete each of the following problems. For numerical problems, you must show your work in order to possibly earn full credit. You may use your book, **but you may not seek help from anyone other than Dr. Lamp**. Submission of this quiz is your assertion that it was completed in accordance with this rule. The quiz score will be scaled to a maximum of 10 points.

**Due in class Friday, September 8**

1. Based on the Dalton's atomic theory and the models that framed it, determine whether the following reactions are allowed or not. Briefly justify your answers. (6 pts)



2. Element X forms three different compounds with element Y. Based on the information in this table, what are the formulas of compounds 2 and 3? Justify your answers. (6 pts)

Compound	Formula	Mass of Y per gram of X
1	$\text{XY}_6$	2.82 g
2	$\text{XY}_?$	1.41 g
3	$\text{XY}_?$	0.94 g

3. Complete the table for a neutral atom of each isotope. (5 pts)

<b>Element name</b>	<b>phosphorous</b>	
<b>Symbol</b>		
<b>Atomic number</b>		<b>11</b>
<b>Mass number</b>	<b>31</b>	
<b># of protons</b>		
<b># of neutrons</b>		<b>12</b>
<b># of electrons</b>		