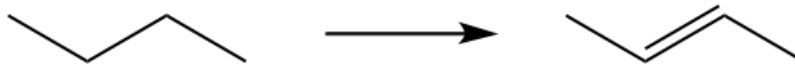


NAME: \_\_\_\_\_

Quiz 3

1. Balance the following reaction and determine if it is an oxidation or reduction event.



2. For the reaction  $A \rightarrow B$ ,  $\Delta G^\circ = -17.8$  kcal/mole at 310 K.

- a. Check all that apply to  $A \rightarrow B$ :

- unfavorable  
 favorable  
 spontaneous  
 non-spontaneous  
  $[B]_{eq} < [A]_{eq}$   
  $[B]_{eq} > [A]_{eq}$   
  $[B] < [A]$   
  $[B] > [A]$

- b. If you need the reaction  $A \rightarrow B$  to generate 5.0 kcal/mole of energy (e.g.,  $\Delta G = -5.0$  kcal/mole at 310 K), determine relative concentrations of products and reactants required:

$$[B] = (?) [A]$$