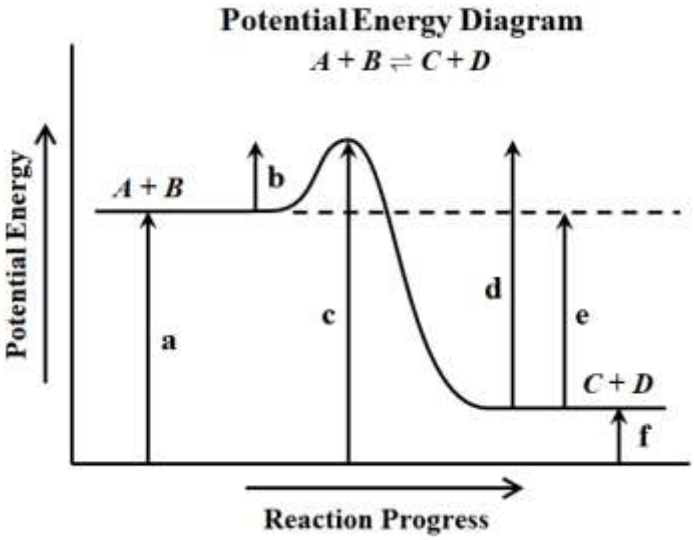
Chemistry Name: _____

Section _____ PE DIAGRAMS Date: _____



Answer the following questions.

1. Which arrow represents the PE of the reactants? a
2. Which arrow represents the PE of the products? f
3. Which arrow represents the PE of the activated complex? c
4. Is the forward reaction endothermic or exothermic? exothermic
5. Is the reverse reaction endothermic or exothermic? endothermic
6. Which arrow represents the activation energy of the forward reaction? b
7. Which arrow represents the activation energy of the reverse reaction? d
8. Which arrow represents the heat of reaction of the forward reaction? e

   Is this ΔH positive or negative? negative
9. Which arrow represents the activation energy of the reverse reaction? e

   Is this ΔH positive or negative? positive
10. Which arrow(s) would change with the addition of a catalyst? b, c, and d

    Would the PE of these arrows increase or decrease? All these PE would decrease.
11. Define E_a. The energy required to form an activated complex.
12. Two conditions of collision theory are: There must be enough energy to form the activated complex and there must be proper orientation. (orientation must be auspicious)