Advanced Chemistry. Enzyme worksheet Name:

I. Match each of the following substances with its corresponding enzyme:

1. _____ Urea	a. Lipase
2. _____ Hydrogen peroxide	b. Glucose-6-phosphatase
3. _____ Lipid	c. Peroxidase
4. _____ Aspartic acid	d. Sucrase
5. _____ Glucose-6-phosphate	e. Urease
6. _____ Sucrose	f. Aspartase

II. For each of the following enzyme names

a.) describe the type of reaction implied by each (i.e. Tristearin hydrolase - hydrolizes the triglyceride tristearin),
b.) identify the class and subclasses to which each belongs,
c.) any cofactors required for the reaction,
d.) write out the chemical equation,
e.) identify the enzyme by the Enzyme classification number.

7. Aspartate 4-decarboxylase
8. Iodide peroxidase
9. Methanol oxidase
10. Maleate isomerase
11. Octanol dehydrogenase
12. Methionine-tRNA ligase
13. Carbonate dehydratase
14. Prolyl aminopeptidase

15. Fresh pineapple can't be used in jello desserts because it contains an enzyme (bromelain) that hydrolizes proteins in gelatin (as well as in the stomach) and it will prevent gelation. Canned pineapple can be used in jello without a problem. Why?

16. What are the products of a trypsin hydrolysis of the following polypeptide? Show the smaller polypeptide chains that are produced. Trypsin is serine protease (meaning it has serine in the active site)

MCLRTYHPAVVMKDEVIHRYLQPPHMCENKQILE