**CHEM525 SDS-PAGE/Western Blot Prelab Questions**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. (4 points) What would you expect to see if you had a mixture of 3 proteins (Molecular masses of 10, 45 and 105 kDa) and ran the sample on a 12.5% SDS-PAGE gel? If you ran them on a 20% gel? Sketch an example gel for each situation (don’t forget a ladder!) and explain why you would see any differences between the 2 gels.
2. (4 points) How exactly will we use your SDS-PAGE gel to determine the molecular weight of the pectate lyase protein you purified? (Be certain to include the specific manner by which you will determine the molecular weight of the protein from the gel)
3. (2 points) If you wanted to perform a Western blot to determine the presence of a hexahistidine tagged protein using alkaline phosphatase, what reagents would you need to be certain you had? Use specific names in your answer (For example, in this week’s lab we will use chicken anti-pectate lyase IgG as a primary antibody. I’ll leave the rest of the reagents up to you to determine)