PRELAB ACTIVITY
Answer the following questions based on the information in your textbook, the lab handouts I have given you and our discussions of glycolysis, fermentation, and aerobic respiration.

1. An example of an organism that goes through fermentation.

2. Where in your body might you find fermentation taking place?

3. What commercial products take advantage of this naturally occurring process. Give three examples.

4. Which process is more efficient at converting carbohydrates (ex. glucose) into energy (i.e ATP)? Explain briefly.

5. If you were an anaerobic organism, would you prefer to live in a sealed flask or in one with aeration? Why?

Why would the opposite environment be of no benefit to you?

6. What is a gaseous by-product of the type of fermentation we will be doing in this lab? In champagne, what evidence is there of this gas?
PROCEDURE QUESTIONS:

7. There are three large flasks that will be prepared the night before. They are labeled A, B, C. What is inside each? What preparations were made to each one?
   A._____________  B._____________  C._____________
   _______________  _______________  _______________
   _______________  _______________  _______________

8. What temperature should you get the culture to before turning off the hot plate? _____ What temperature is too high? _____

9. Why should the temperature of the culture stay away from 90°C and above? What happens at these temperatures?
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

10. Based on your vast sum of stored knowledge, which flask (A,B, or C) would you expect to give off more alcohol (as shown by gas chromatograph)? Why? Why not for the other two flasks?
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