

# Chemistry 2720 Fall 2003 Quiz 5

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

Suppose that you want to make a compound C by the reaction



Your lab also has the supplies necessary for the following reactions:



1. Provide a brief argument (possibly using a simple calculation) showing that the original reaction (0) will not produce much C under reasonable experimental conditions.
2. Which of the supplementary reactions (A–D) could be used to increase the yield of C relative to what you would get from reaction (0)? Outline your reasoning for each reaction in a few words.
3. Which of the supplementary reactions would, all other things being equal, increase the yield of C the most?

$$R = 8.314472 \text{ J K}^{-1} \text{ mol}^{-1}$$

To convert degrees Celsius to Kelvin, add 273.15.