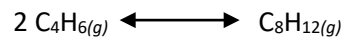


Unit 13 – Chapter 12: Butadiene Pre-Lab Questions

Name _____

Period _____

Butadiene reacts to form its dimer according to the equation



The following data were collected for this reaction at a given temperature

[C₄H₆] (mol/liter)	Time (sec)
0.01000	0
0.00625	1000
0.00476	1800
0.00370	2800
0.00313	3600
0.00270	4400
0.00241	5200
0.00208	6200

- Is this first order or second order?
- What is the value of the rate constant for the reaction?
- What is the half-life for the reaction under the conditions of this experiment?