April 26, 2002

➢ **Exam #3**

  ✓Graded exams!

✓ **Labs**

  ALL LABS DUE NO LATER THAN:

     MIDNIGHT, MAY 1st
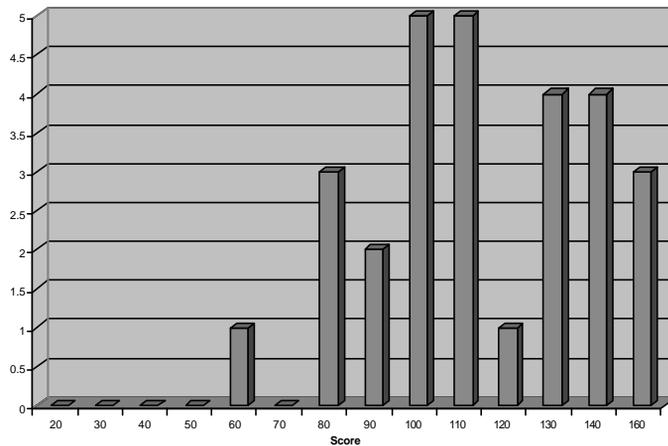
✓ **Final Exam**

  • Friday, May 10th - 8:30 am start time

  • Alternate day/time: email by ***today!***

1

Exam #3 Results

Average =

109/150
(73%)

2

1

The Arrhenius Equation

■ Allows us to *quantify* the effect of temperature on rate constant:
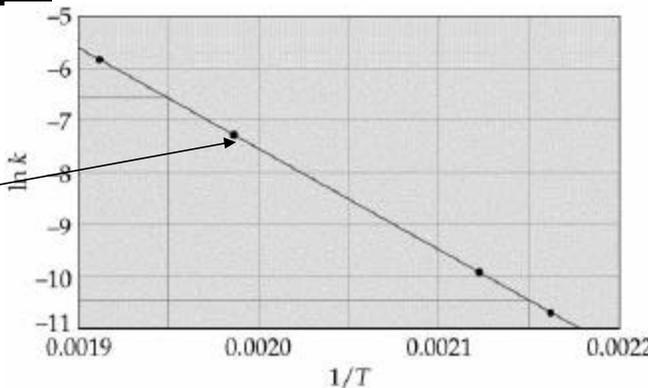
$$Lnk = -(E_a/R)(1/T) + LnA$$

Rate constant

Arrhenius Constant
(function of collision frequency and steric factors)

3

Graphical Analysis

➤ Plot Lnk versus 1/T:

Slope = $-E_a/R$

Alternately (for 2 values):

$$Ln(k_2/k_1) = (E_a/R)(1/T_1 - 1/T_2)$$

4