

Ch. 13.3: Integrated Rate Laws

Homework #13-3: Problems Pg. 576 #21*, 24, 27, 28, 29, 30, pg. 581 #94* (**For these two questions, see my website to see the plots for these questions already done for you.*)

21 $k = 1.19 \times 10^{-4} \text{ s}^{-1}$

27 $t_{\frac{1}{2}} = 30 \text{ min}$

28 (a) $k = 0.0198 \text{ s}^{-1}$

 (b) $t = 151 \text{ s}$

29 (a) $[\text{NOBr}] = 0.034 \text{ M}$

 (b) $t_{\frac{1}{2}} = 17 \text{ s}$

 For an initial concentration of 0.054 M , you should find $t_{1/2} = 23 \text{ s}$.

30 $t = 3.6 \text{ s}$

94 $k = 2.4 \times 10^7 / \text{M}\cdot\text{s}$