

14.32

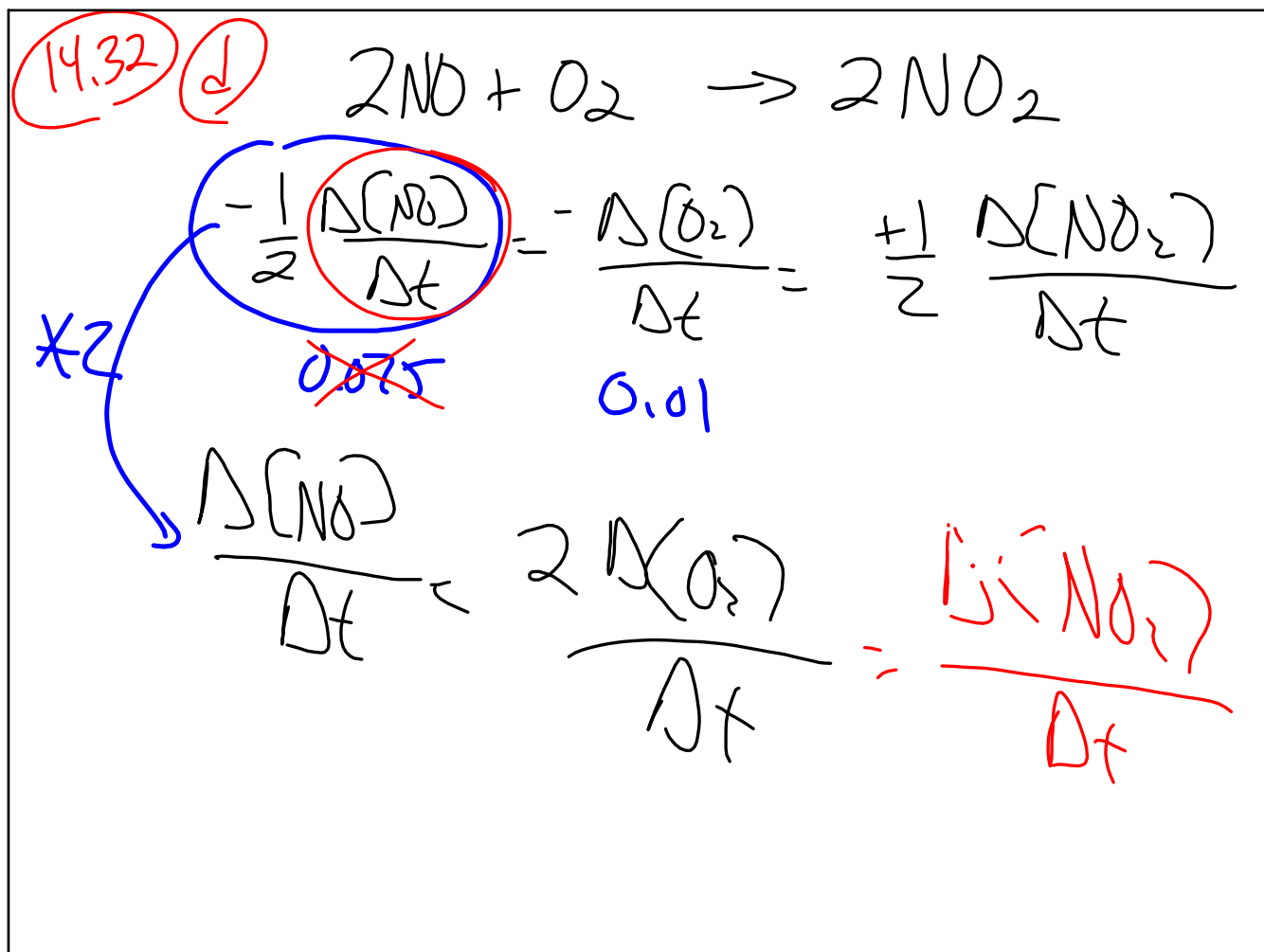
① Rate =  $k [\text{NO}]^2 [\text{O}_2]$  (7/10)

4(Rate) =  $k (2)^2 (1)^1$

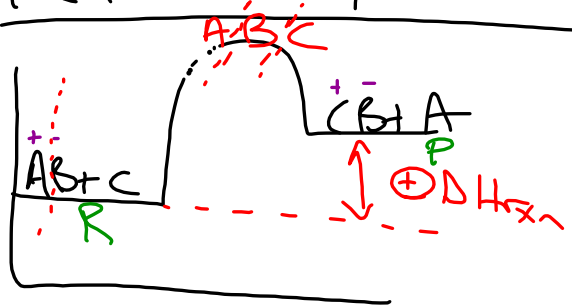
②  $k = \frac{1}{\text{M}^2 \cdot \text{sec}}$  (3<sup>rd</sup> order)

$\text{M}^{-2} \text{sec}^{-1}$

8



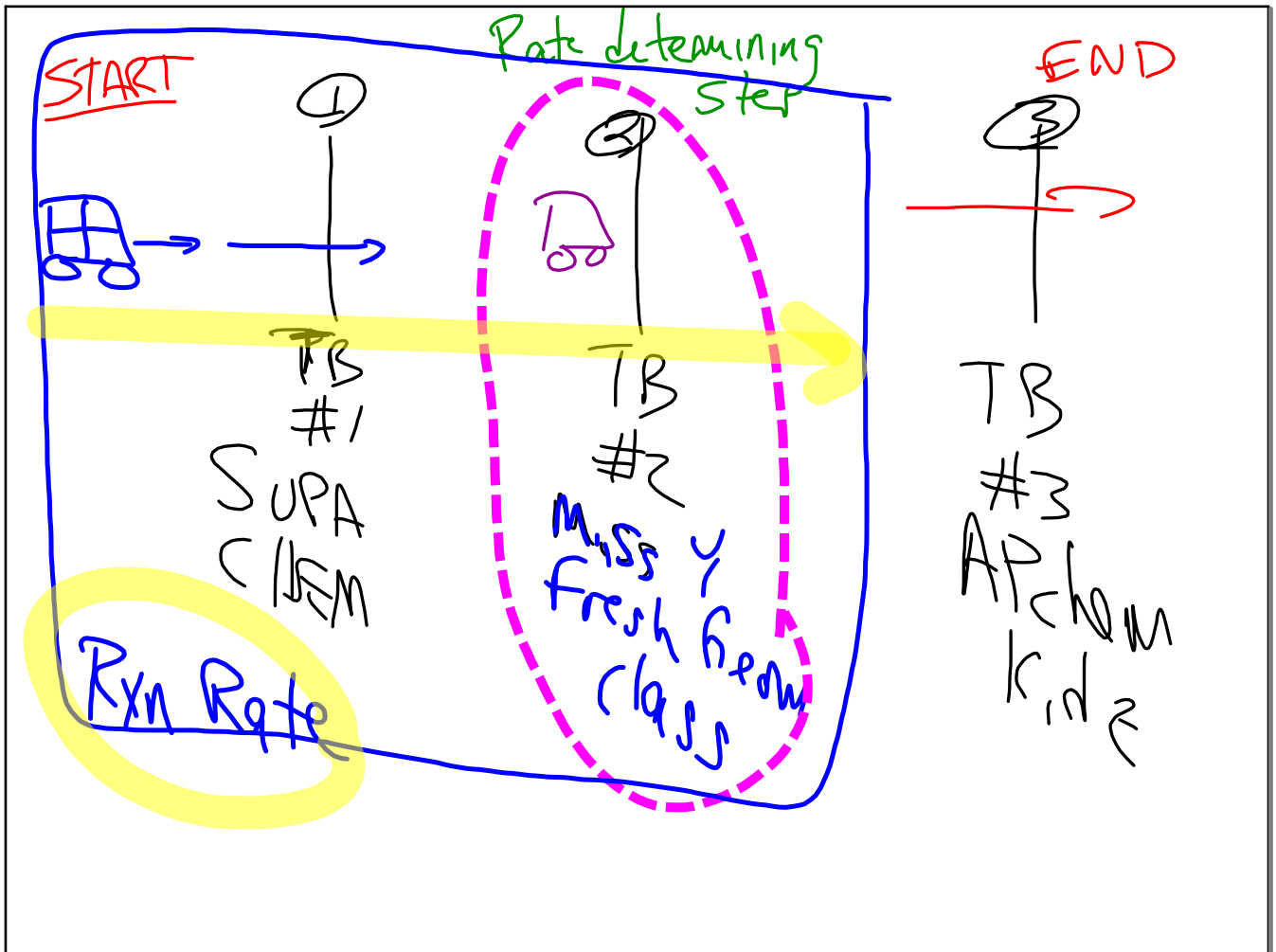
# Reaction Mechanisms



$$\Delta H = \text{Bonds Broken} - \text{Bonds Formed}$$

## Series of Steps

- ① Break A-B bond **Fast**
  - ② A, B, C interact **Slow**
  - ③ Form a CB bond **Fast**
- Imp?



Include ALL STEPS

up to and including the  
Slow step

Rate determining  
Step



PS 14-1

1-7, 13-15