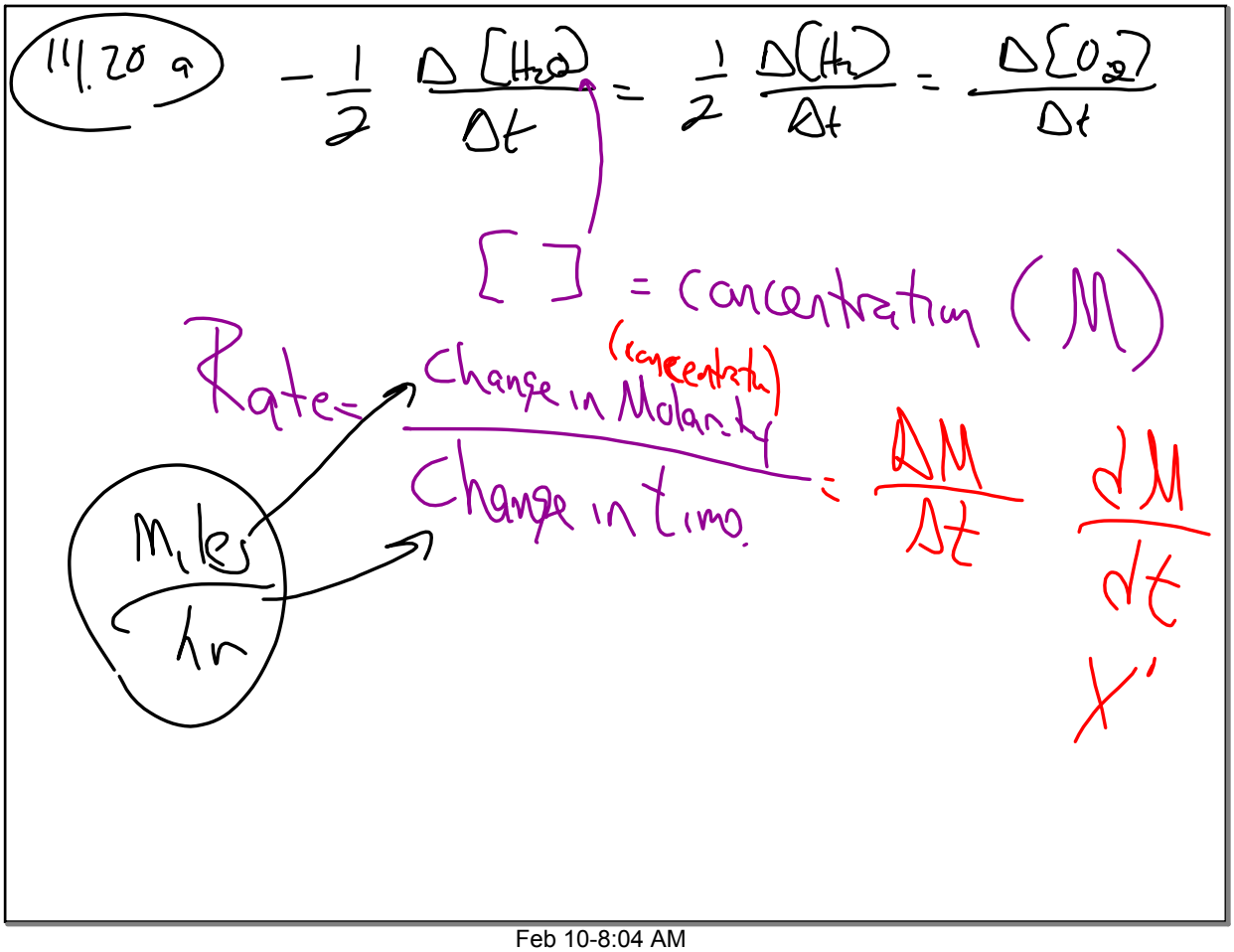

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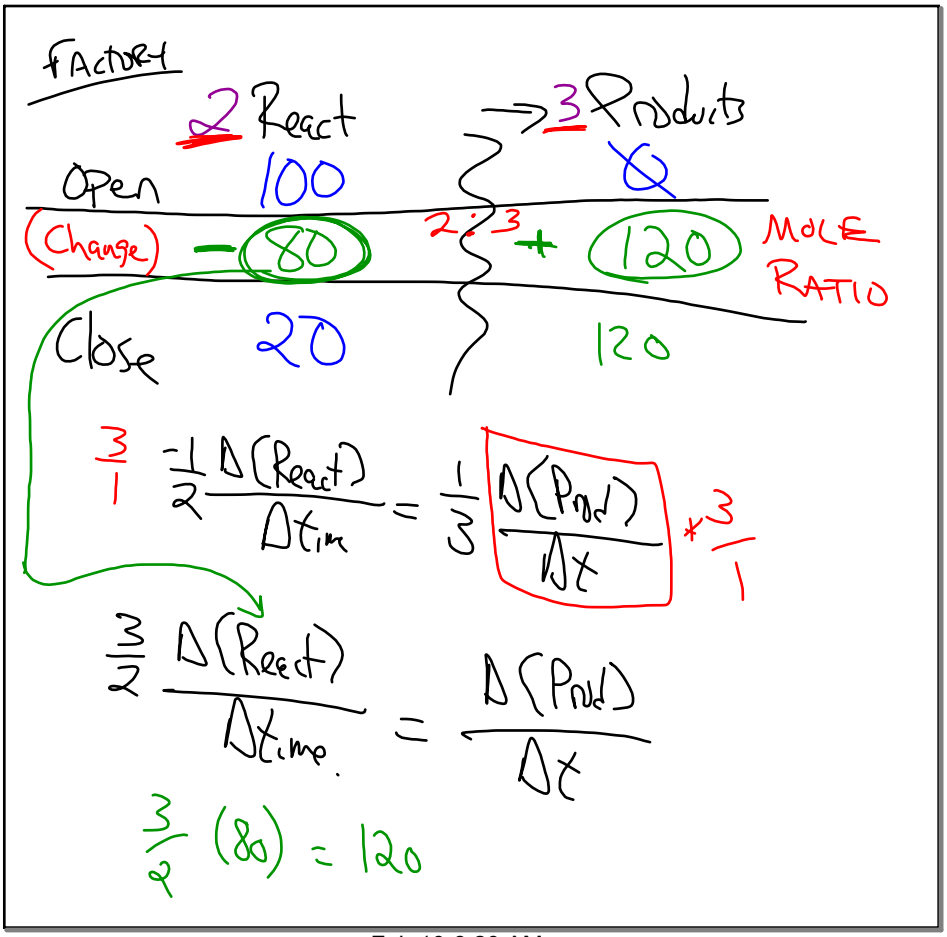

Feb 10-8:20 AM

Rate $\propto$ [Reactants]

($\propto$ = proportional to)

Rate $\propto [R_1]^{1}[R_2]^{1}$

Add a constant → We ∝ to =

Rate = $K[\text{React(A)}]^{m}[\text{React(B)}]^{n}$

$m+n$ (exponents) = Reaction orders

1) DATA TABLE!

Feb 10-8:25 AM

Rate Law $m+n$.

Δ[React] $\xrightarrow{\text{exponent}}$ Δ[RATE]

1st order: $2^{1} = 2$

2nd order: $2^{2} = 4$

$2^{3} = 8$

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[ ] Rate.

$2^{[X]} = 5$

$\ln 2^x = \ln 5$

$X \ln 2 = \ln 5$

$X = \frac{\ln 5}{\ln 2} = 2.32 = X$

Feb 10-8:39 AM

Log Rulz

$\log x \quad 10^x$

$\ln x = e^x$

① $\log AB = \log A + \log B$

② $\log \frac{C}{D} = \log C - \log D$

③ $\log E^f = f \log E$

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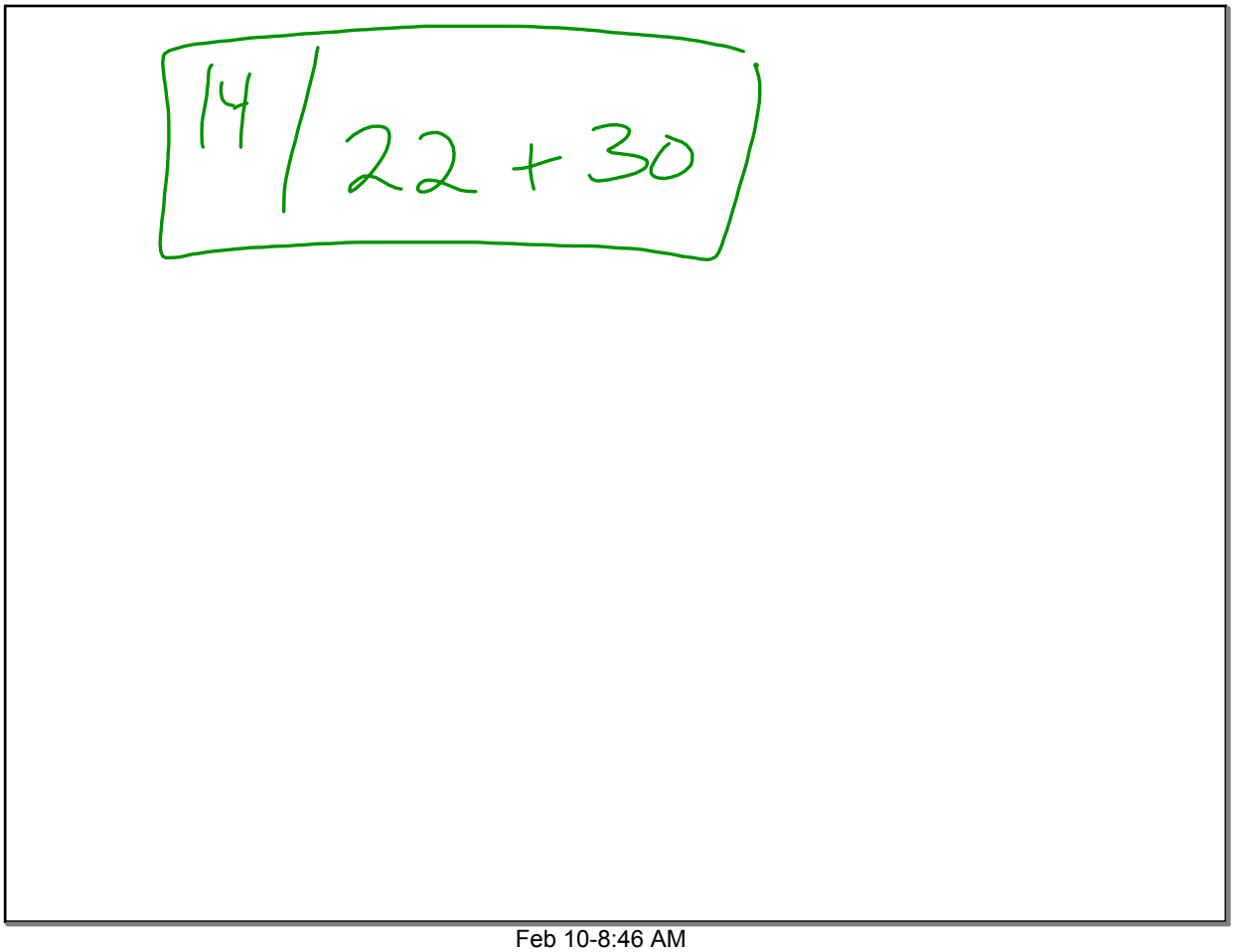

Feb 10-8:46 AM