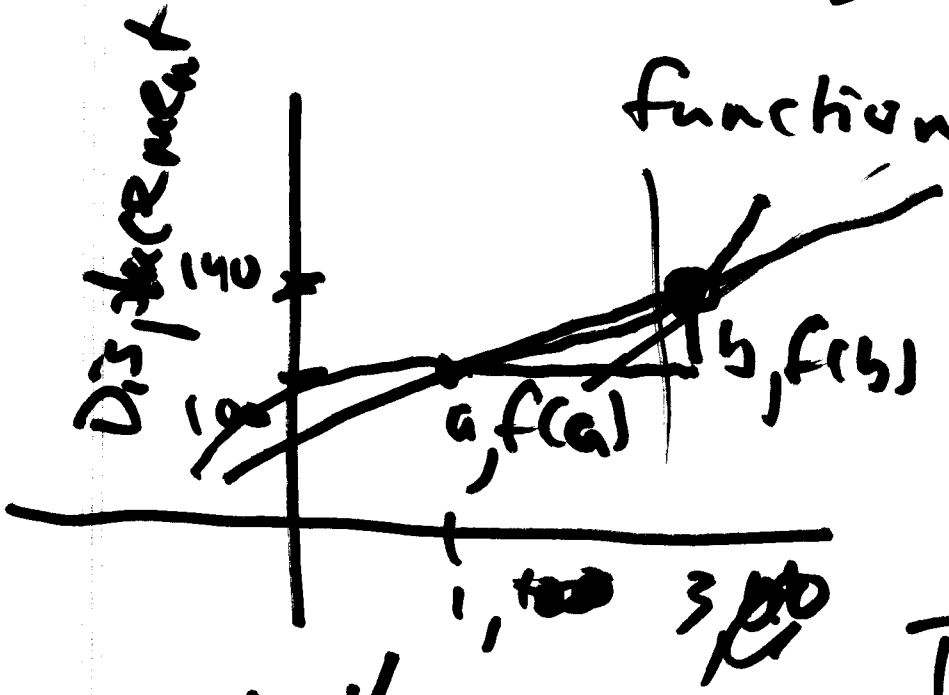
8/28
1100

About calculus

About visualizing Graphs

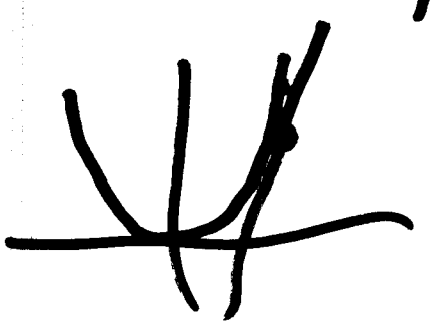
About inequalities, order

Instantaneous Rate of Change



$$\frac{140-100}{\square-!}=?v$$

$$\frac{f(b)-f(a)}{b-a}$$



Cops:

Odometer Clock

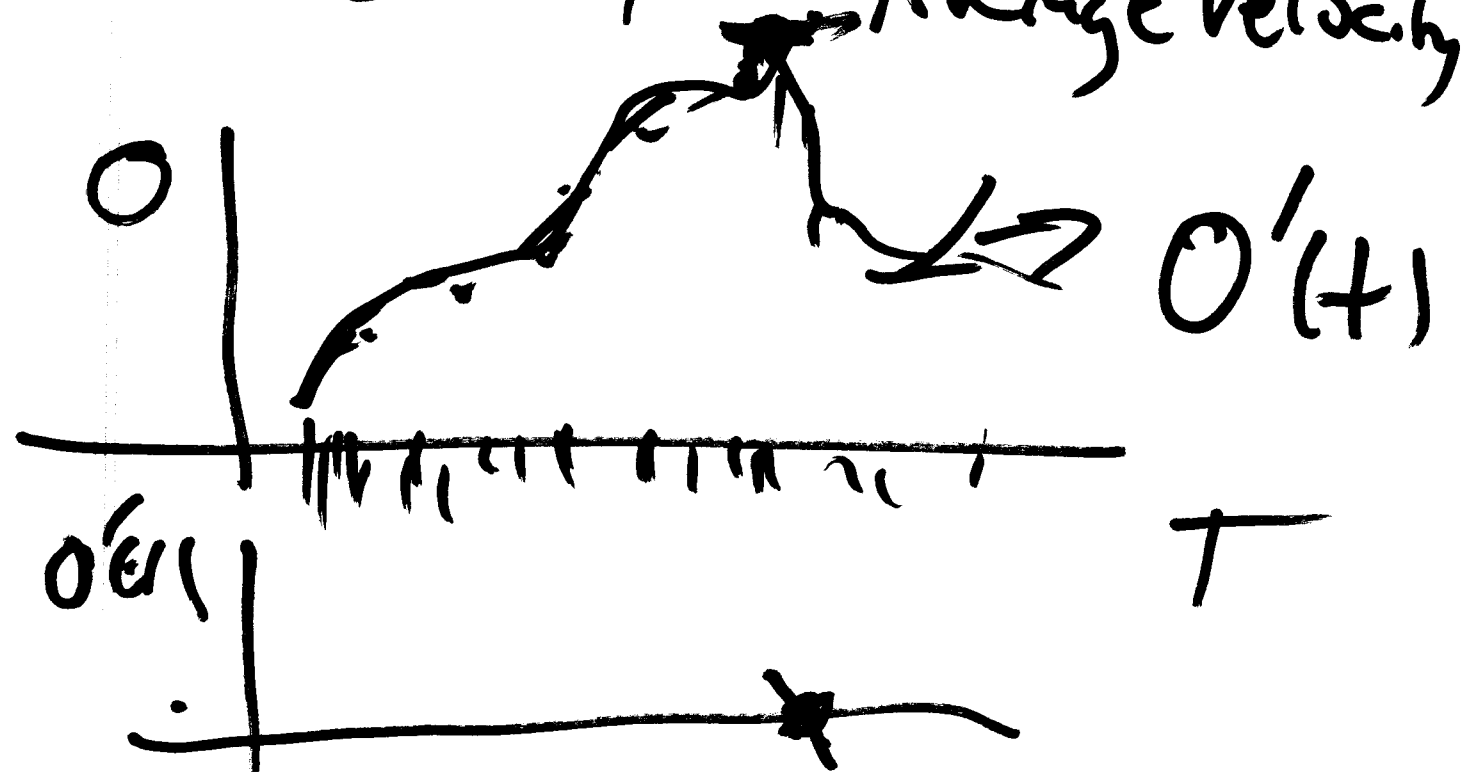
$O(t)$ t

Recover Speedometer?

$V(t)$

ΔO $\frac{O(t_2) - O(t_1)}{\Delta t = t_2 - t_1}$ =

Average Velocity



$V(t)$ +

Can I recover $O(t)$?

If so how?

$$O(t) = \underline{V(t)\cdot\Delta t} \quad V(t_1)\Delta t_1 + V(t_2)\Delta t_2 + V(t_3)\Delta t_3 + \cdots$$

$60 * \frac{1}{100}$, C

Odometer only up to a constant!

$$\int_a^b V(t)\,dt = \frac{t^3}{3} + C$$

$$= V(b) - V(a)$$

$$T(t) = \sum_j V(t_j)\Delta t_j \longrightarrow \text{approach}$$

$$\frac{d}{dx}\int_a^x V(t)\,dt = V(x)$$

$$\int_a^x \emptyset'(t)\,dt = \emptyset(x) - \emptyset(a)$$

$$a = \frac{F}{m} \quad (x'')$$