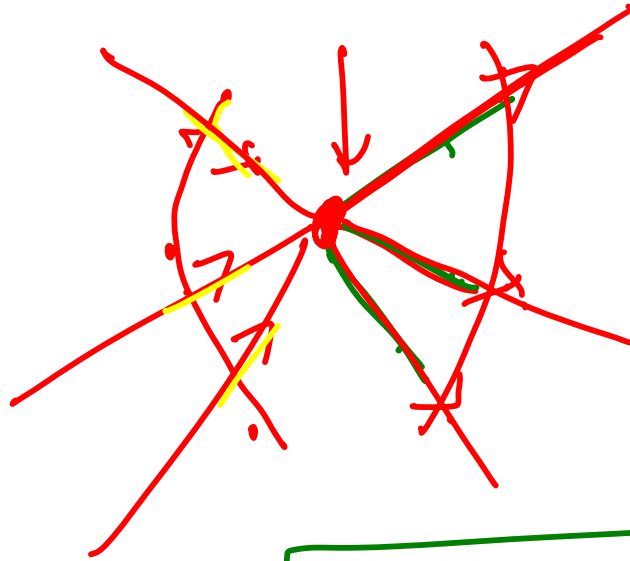


$$f^+(x) = 6 \quad f^-(x) = 0$$

$$\begin{array}{l} \overline{f^-(y) = 6} \\ \underline{f^+(y) = 0} \\ f^-(v) = 8 \\ f^+(v) = 5 \end{array}$$

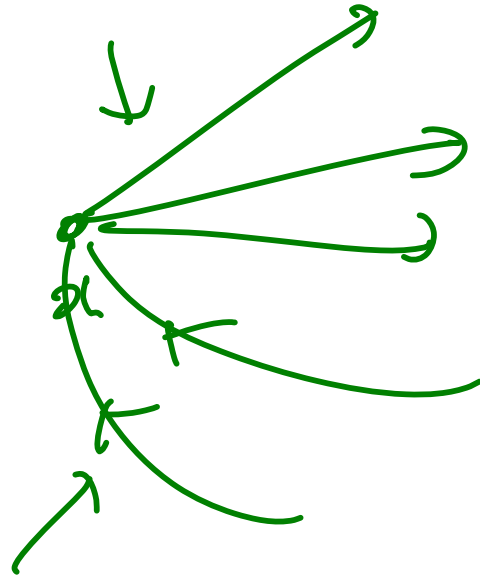
I



✓

$$f^+(v) = f^-(v)$$

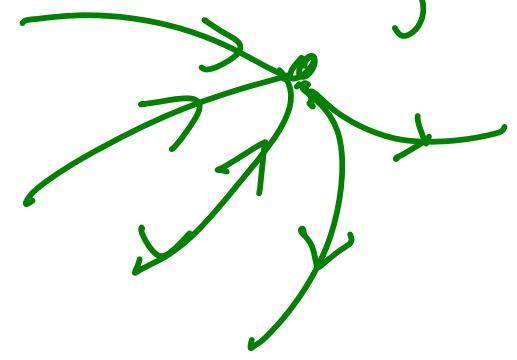
$$0 \leq f(a) \leq c(a)$$

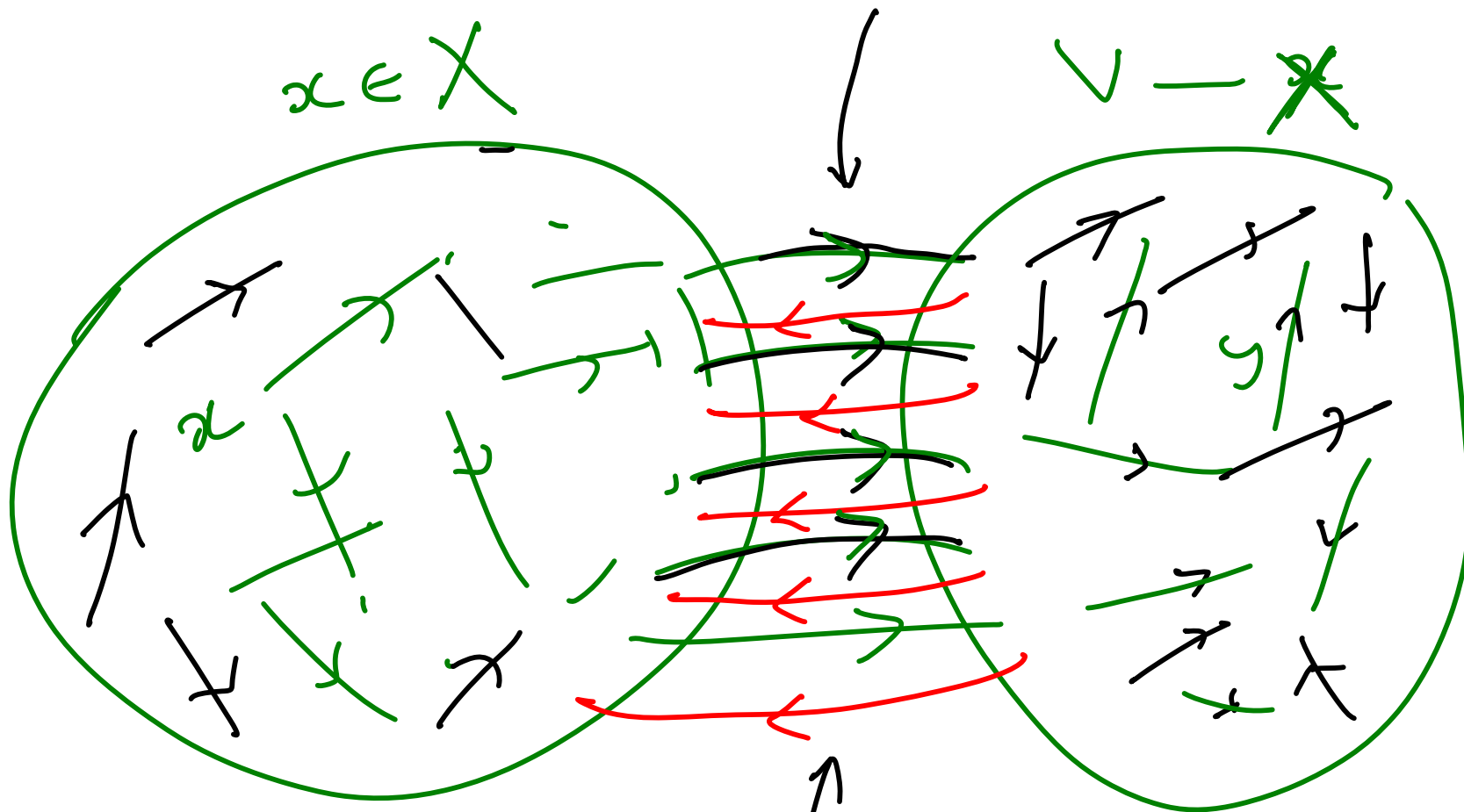


$$f^+(x) - f^-(x)$$

as the
value

$$f^-(y) - f^+(y)$$





$$f^+(x) - f^-(x)$$

$$\underbrace{f(\underbrace{\partial^+(x)}_{\text{arrow}})}_{\text{bracket}} = \underbrace{f^+(x)}_{\text{bracket}}$$

$$\partial^+(x)$$

$$\partial^-(x)$$

$$f(\partial^-(x)) = f^-(x)$$

Any X , $x \in X$ and

$y \notin X$, then

$$\underbrace{f^+(x) - f^-(x)}_{\parallel} = \underline{\underline{\text{val}(f)}}$$
$$\underline{\underline{f^+(x) - f^-(x)}}$$

for the source x ,

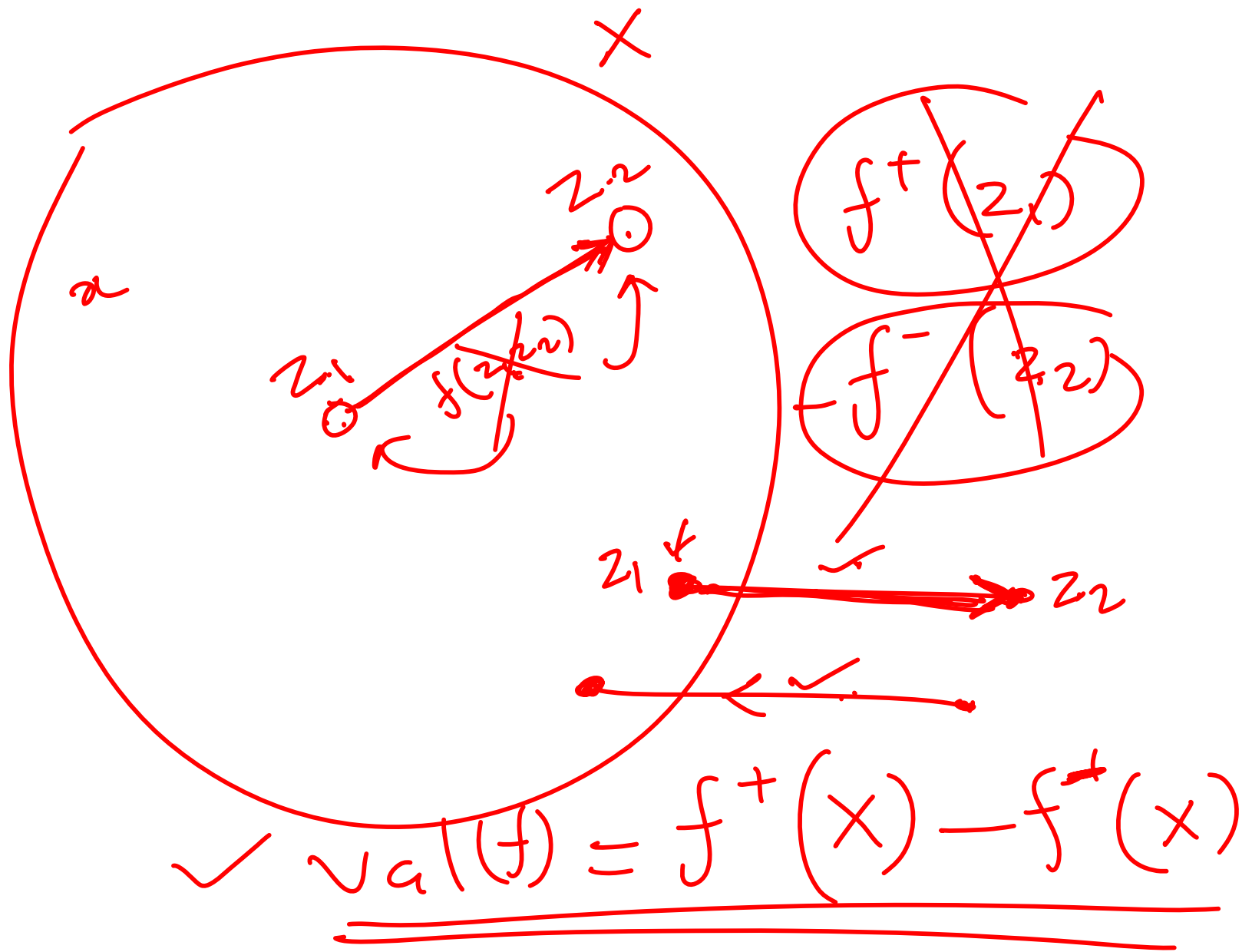
$$\boxed{f^+(x)} - f^-(x) = \underline{\text{val}(f)}$$

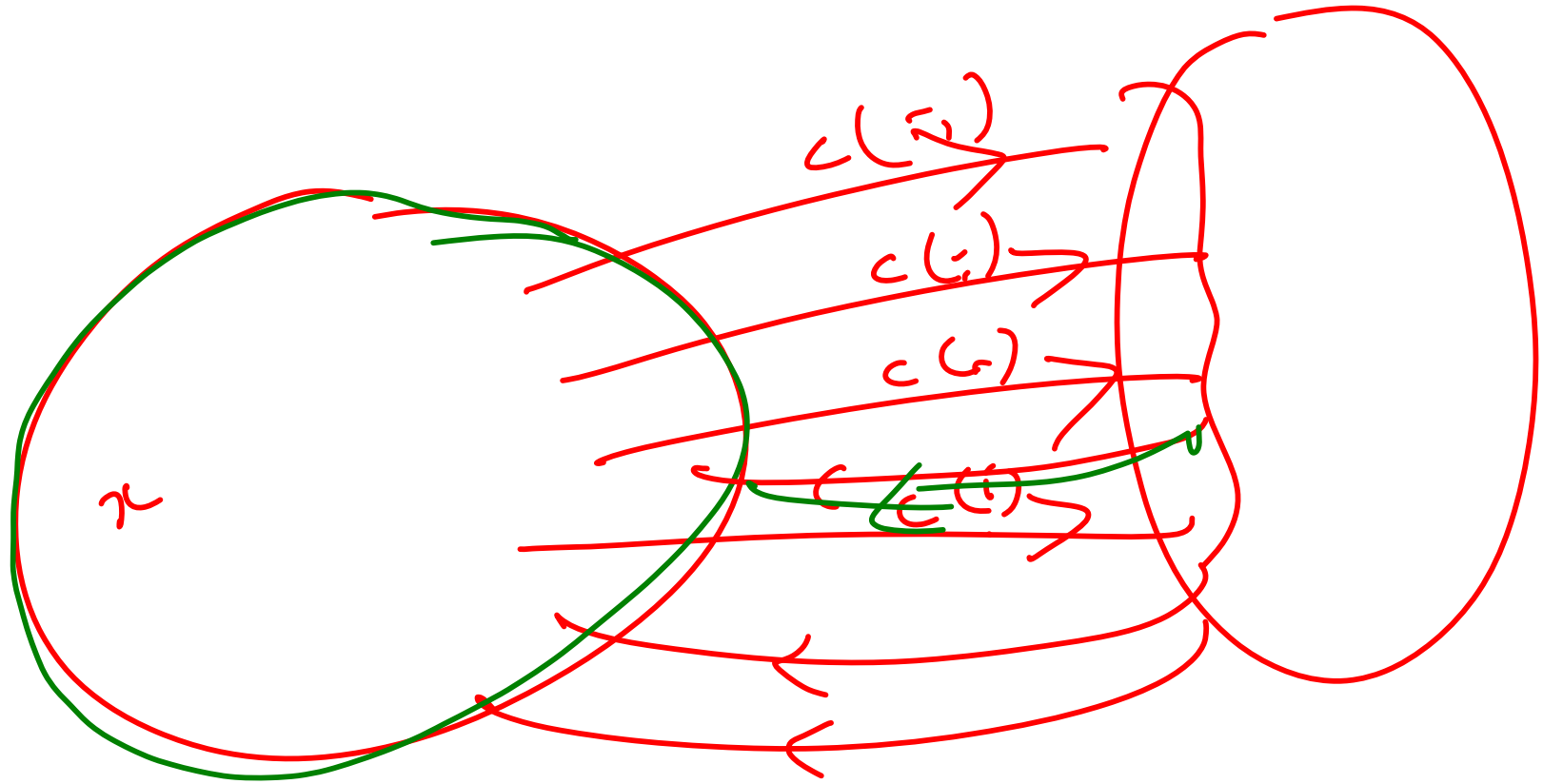
for every $z \in I$,

$$f^+(z) - f^-(z) = \underline{\underline{0}}$$

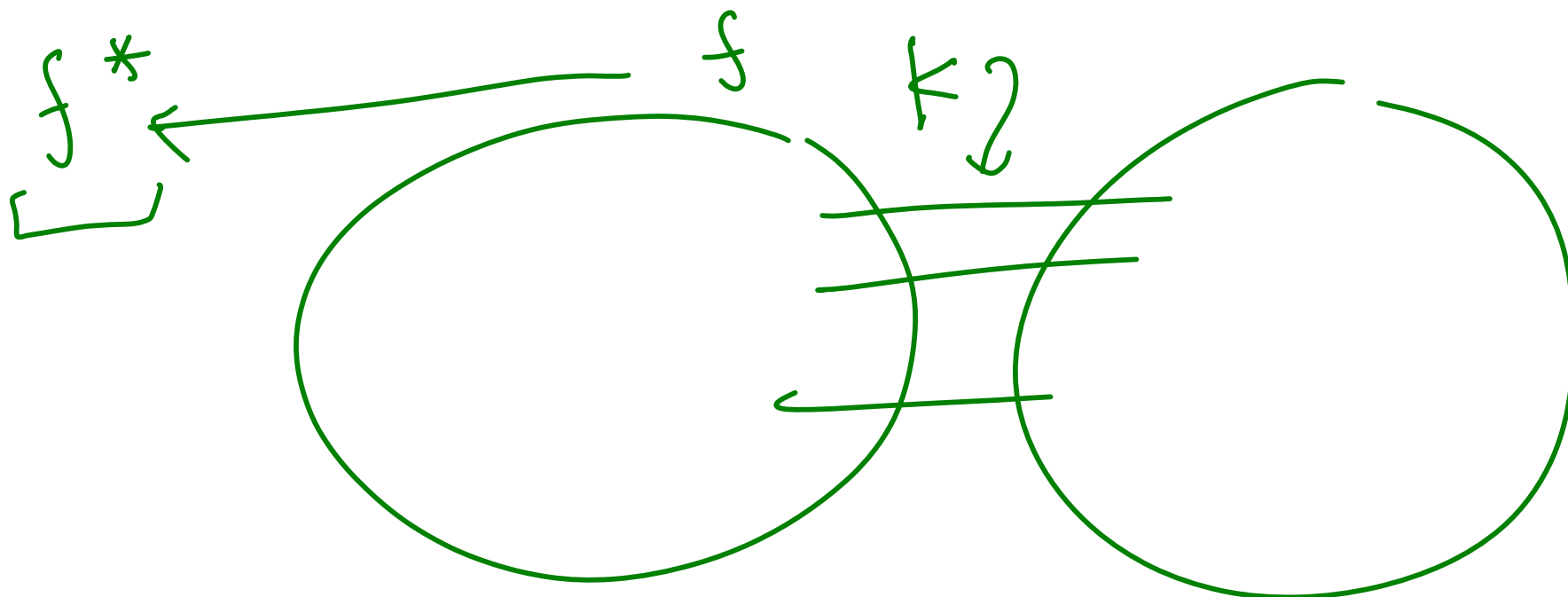
f
 $\int_{x \in X}$

$$= \text{val}(f)$$





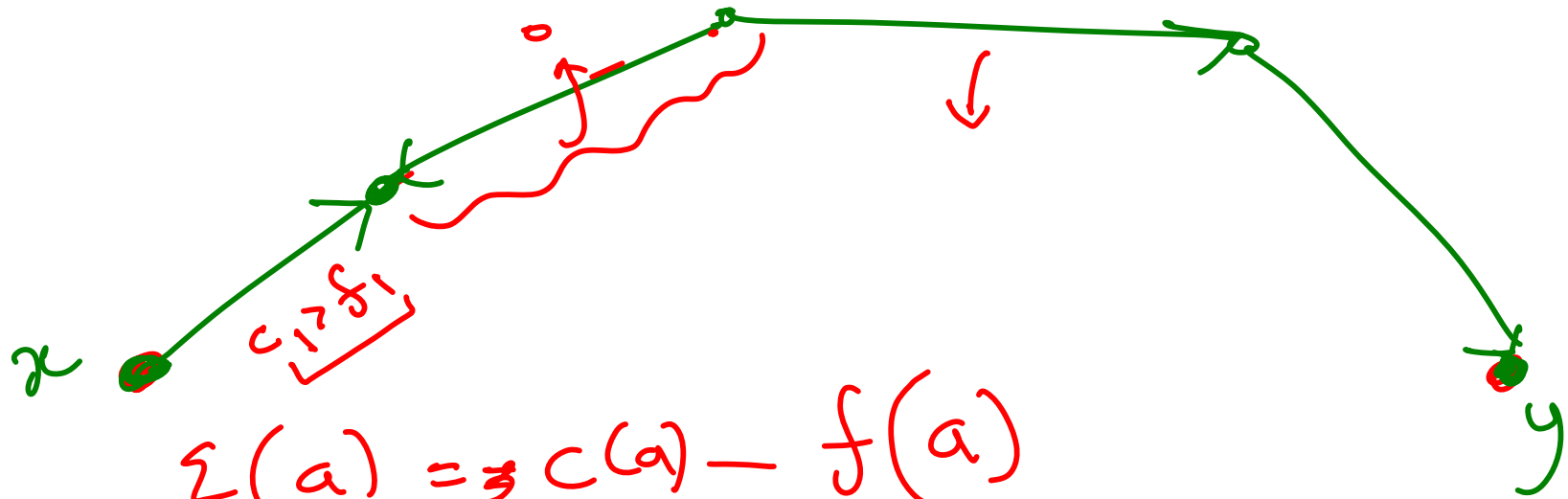
$$\begin{aligned}
 & \quad \quad \quad X \quad \quad \quad \nearrow \\
 \text{val}(f) &= f^+(x) - f^-(x) \\
 & \quad \quad \quad \downarrow \quad \quad \quad \downarrow \\
 & \approx c^+(x) - 0 \\
 & \approx \boxed{c^+(x)} \quad \checkmark \quad \boxed{x - \sqrt{|x|}}
 \end{aligned}$$



$$\text{val}(f) = f^+(x) - f^-(x) =$$

$$\text{val}(f) \leq \text{val}(f^*) \leq \text{cap}(K^*) \leq \text{cap}(K)$$

The above inequality is enclosed in a large hand-drawn bracket. The term $\text{cap}(K^*)$ is crossed out with a scribble, and $\text{cap}(K)$ is written above it. The term $\text{cap}(K)$ has a checkmark next to it.

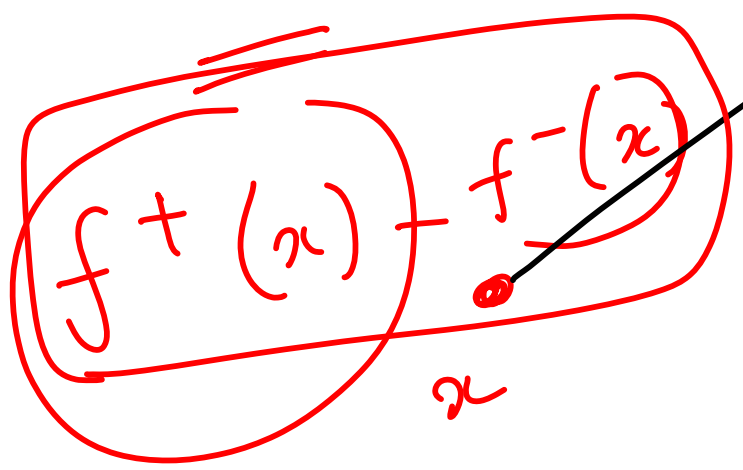


$$\xi(a) = c(a) - f(a)$$

$$\xi(a) = f(a) > 0$$

$f' \leftarrow f$

$$val(f') = val(f) + \varepsilon(p)$$



$$\varepsilon(p) = \min_{a \in P} \boxed{\varepsilon(a)}$$

