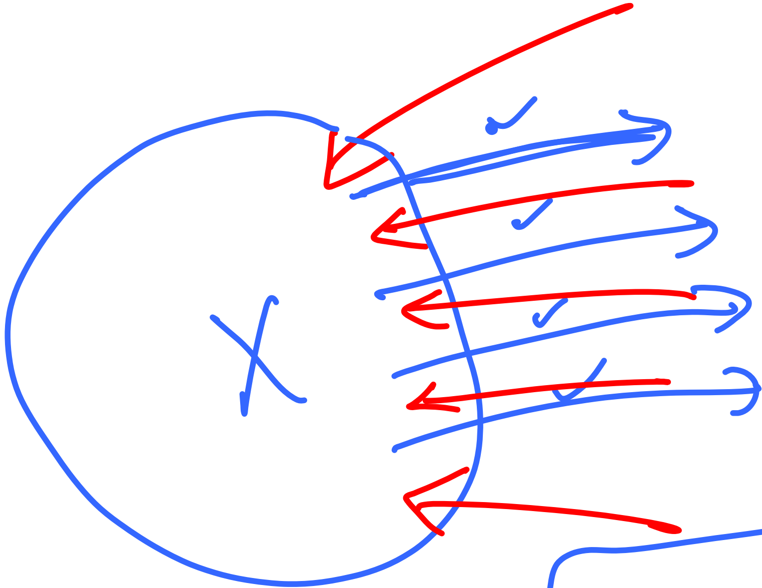
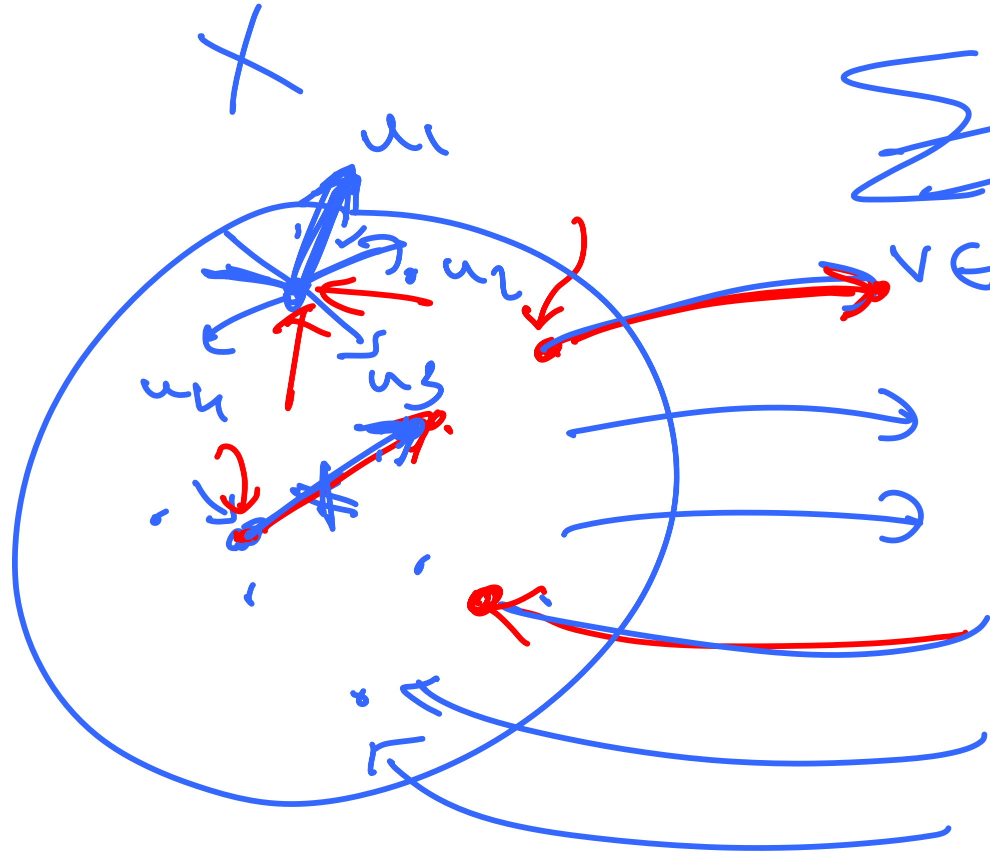


$$f^+(x) \leq c^+(x)$$

$$f^-(x) \geq b^-(x)$$

$$c^+(x) \geq \cancel{\leq} \boxed{f^+(x) = f^-(x)} \geq b^-(x)$$

$\cancel{\sum \left[S(a) \right]}$



$v \in X$

$\sum f(v, u_i)$

$- \sum f(u_i', v)$

$$f^+(x) - f^-(x) = 0$$

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

$$f^+(x) \leq c^+(x)$$

$$f^-(x) \geq b^-(x)$$

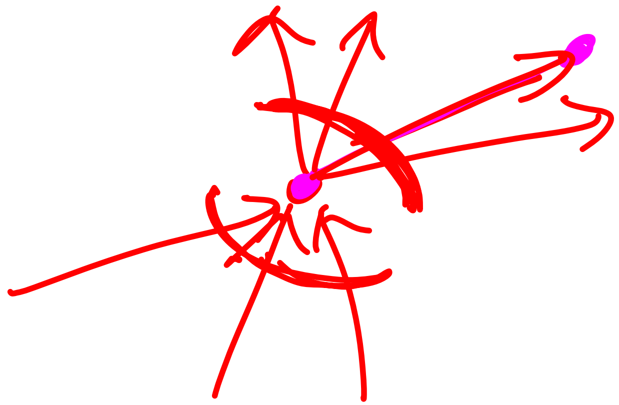
$$\boxed{c^{+}(X) \geq b^{-}(X)}$$

for every $X \subseteq V$

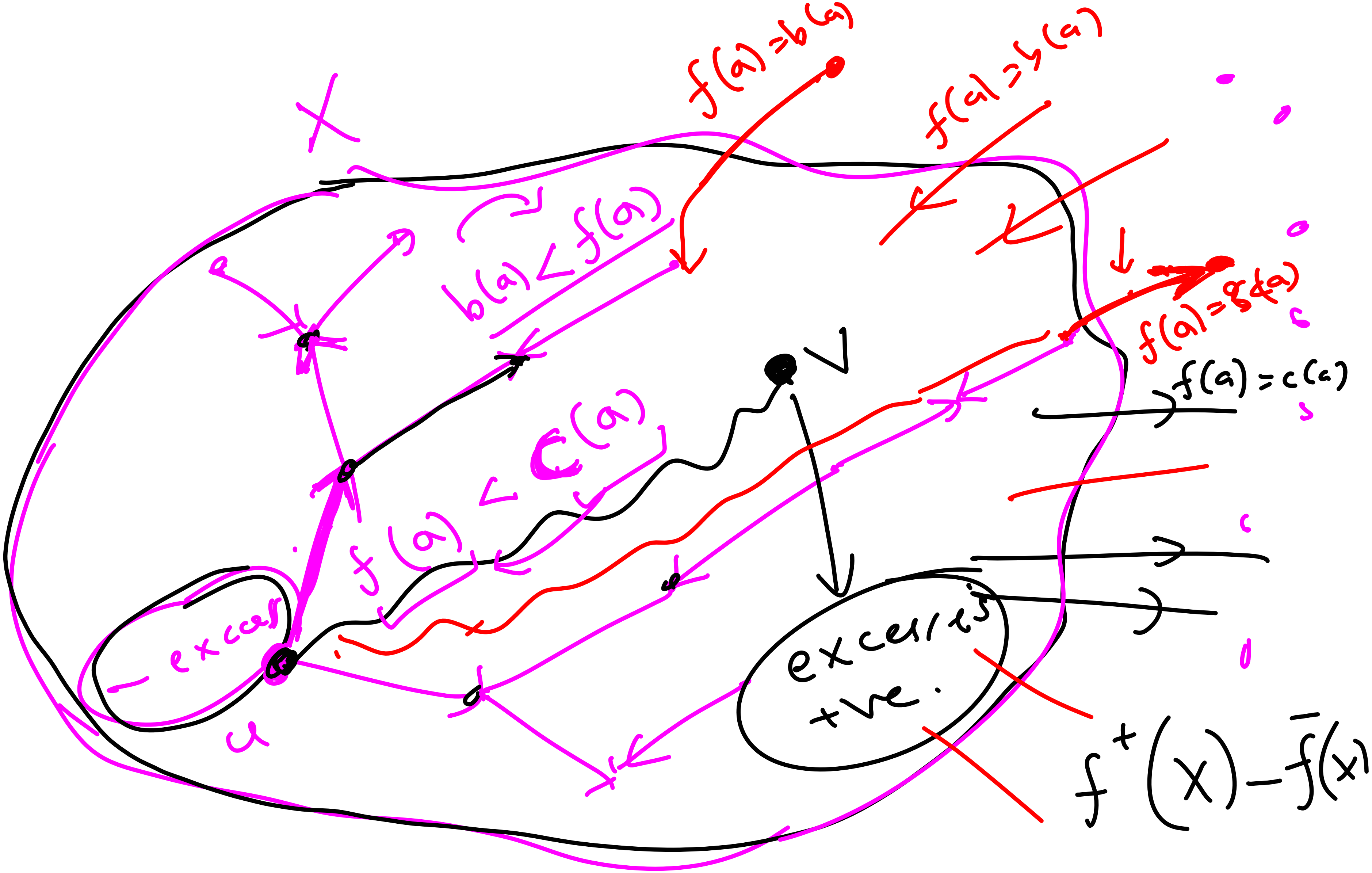
f

$b(a) \le f(a) \le c(a)$ ✓

$\underbrace{b(a)} \le \cdot \le \underbrace{c(a)}$ ✓



"0"

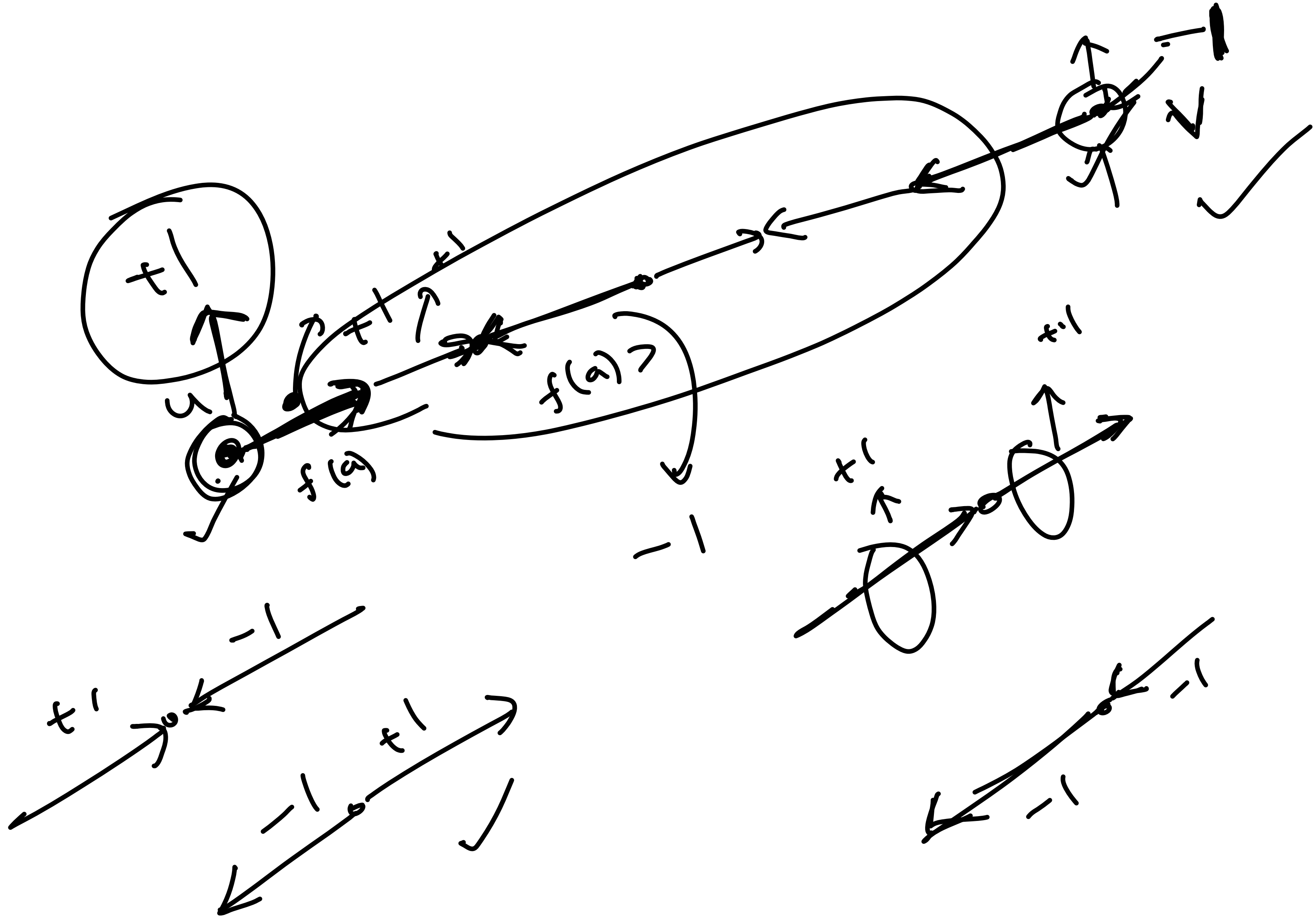


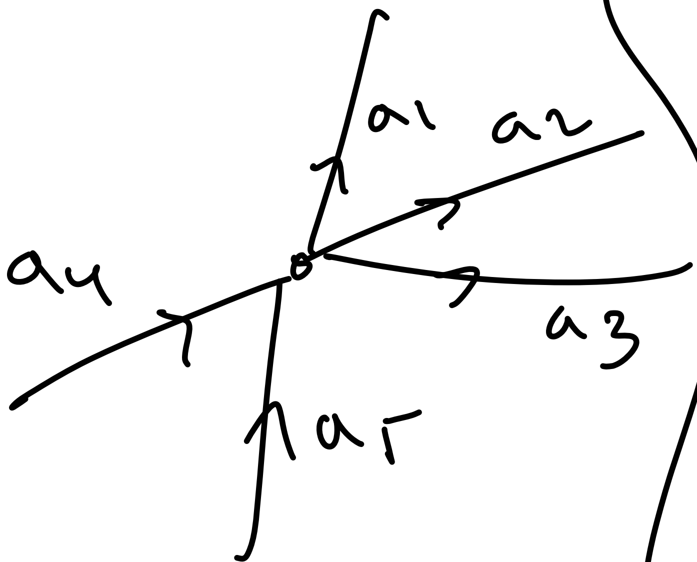
X
$b(a) < f(a)$
$f(a) = b(a)$
$f(a) > b(a)$
V
$f(a) < c(a)$
$f(a) = g(a)$
$f(a) = c(a)$
excer
excercises
+ve.
a
$f^+(x) - f^-(x)$

$$\underbrace{f^{+}(x)}_{\parallel} - \underbrace{f^{-}(x)}$$

$$c^{+}(x) - b^{-}(x) \geq 0$$

$$\boxed{c^{+}(x) \geq b^{-}(x)}$$


+1
u
f(a)
f(a)>
-1
v

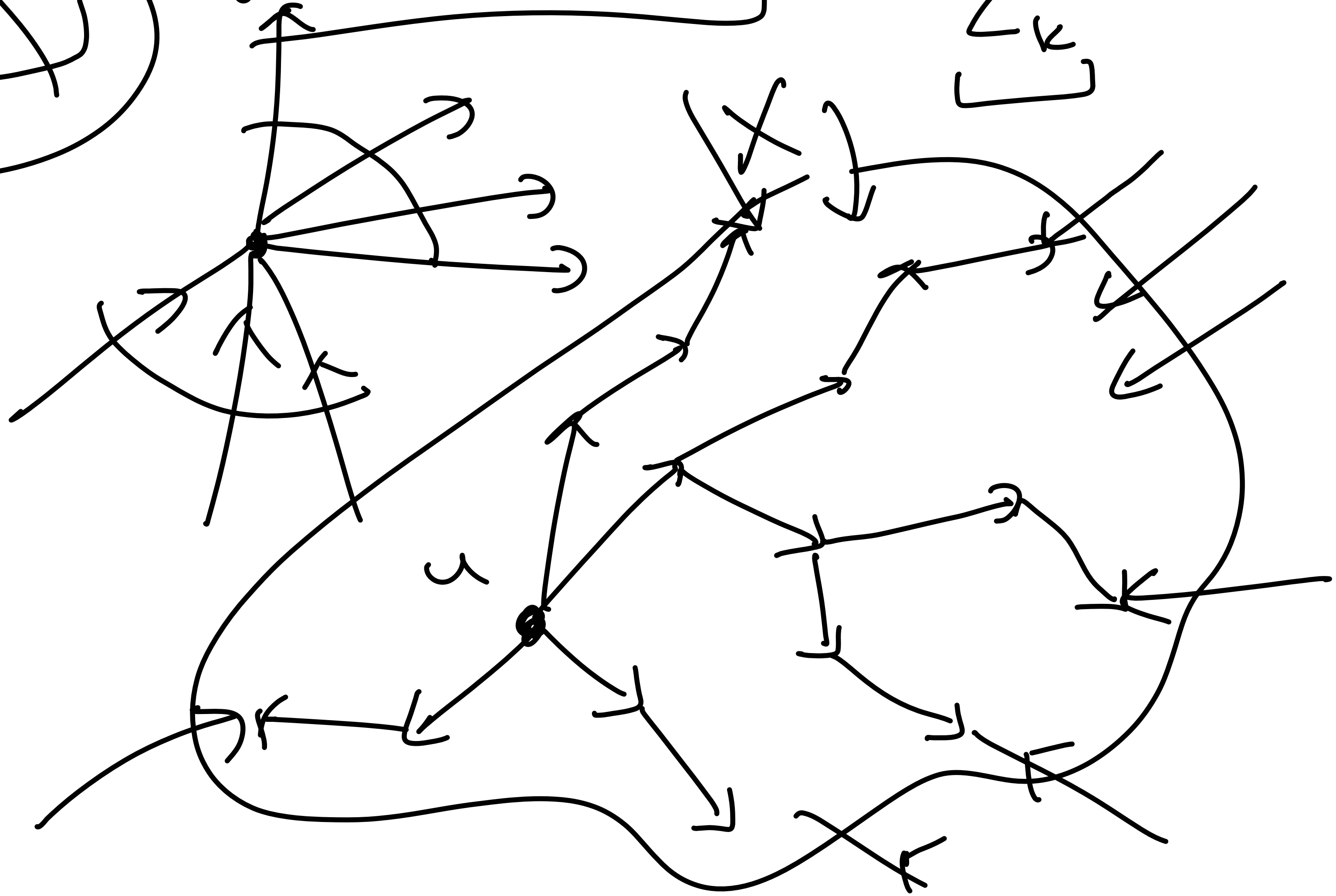


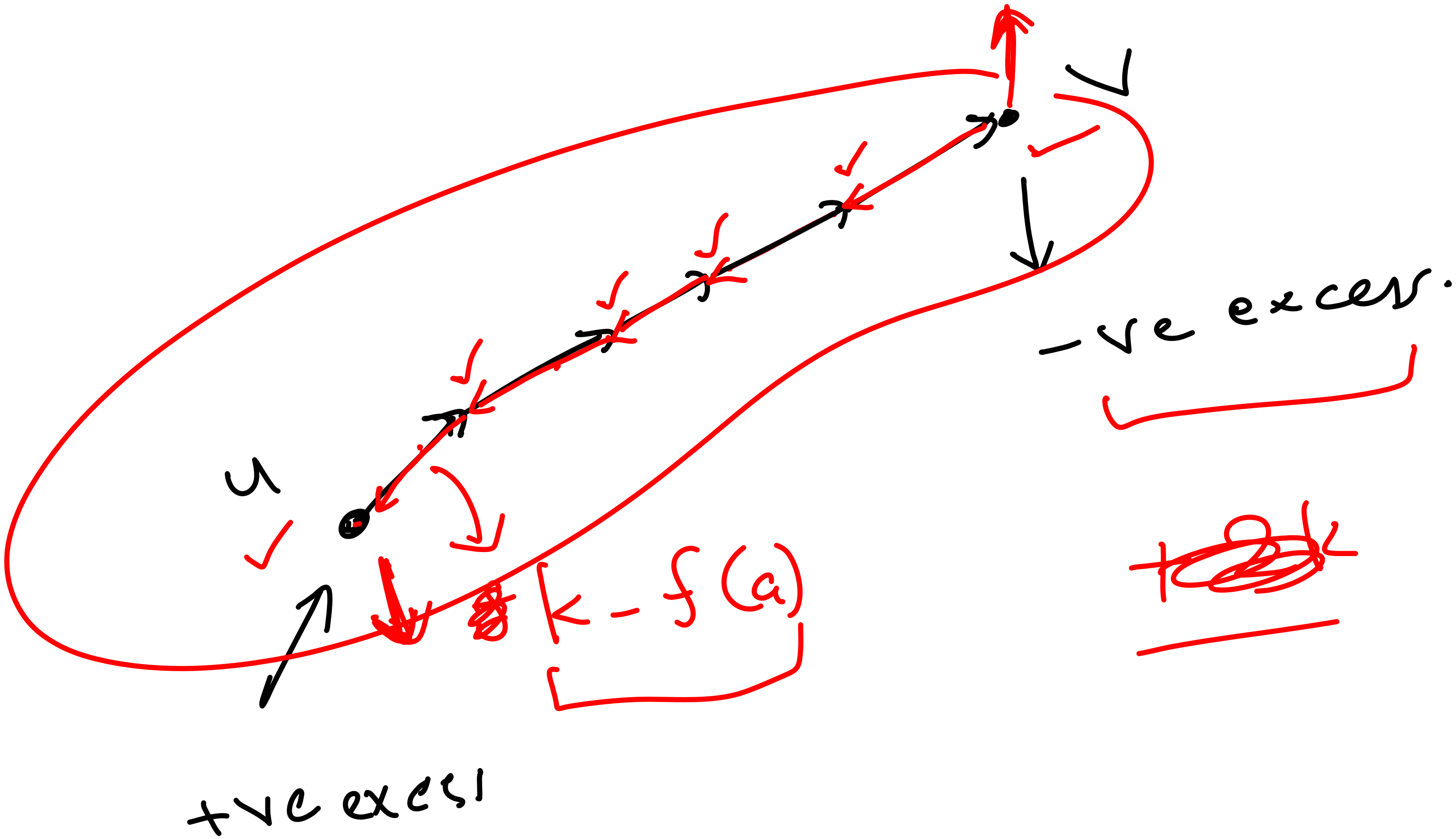
$$\left(f(a_1)+f(a_2)+f(a_3)\right) = \left(f(a_4)+f(a_5)\right)$$

$$\bmod k$$

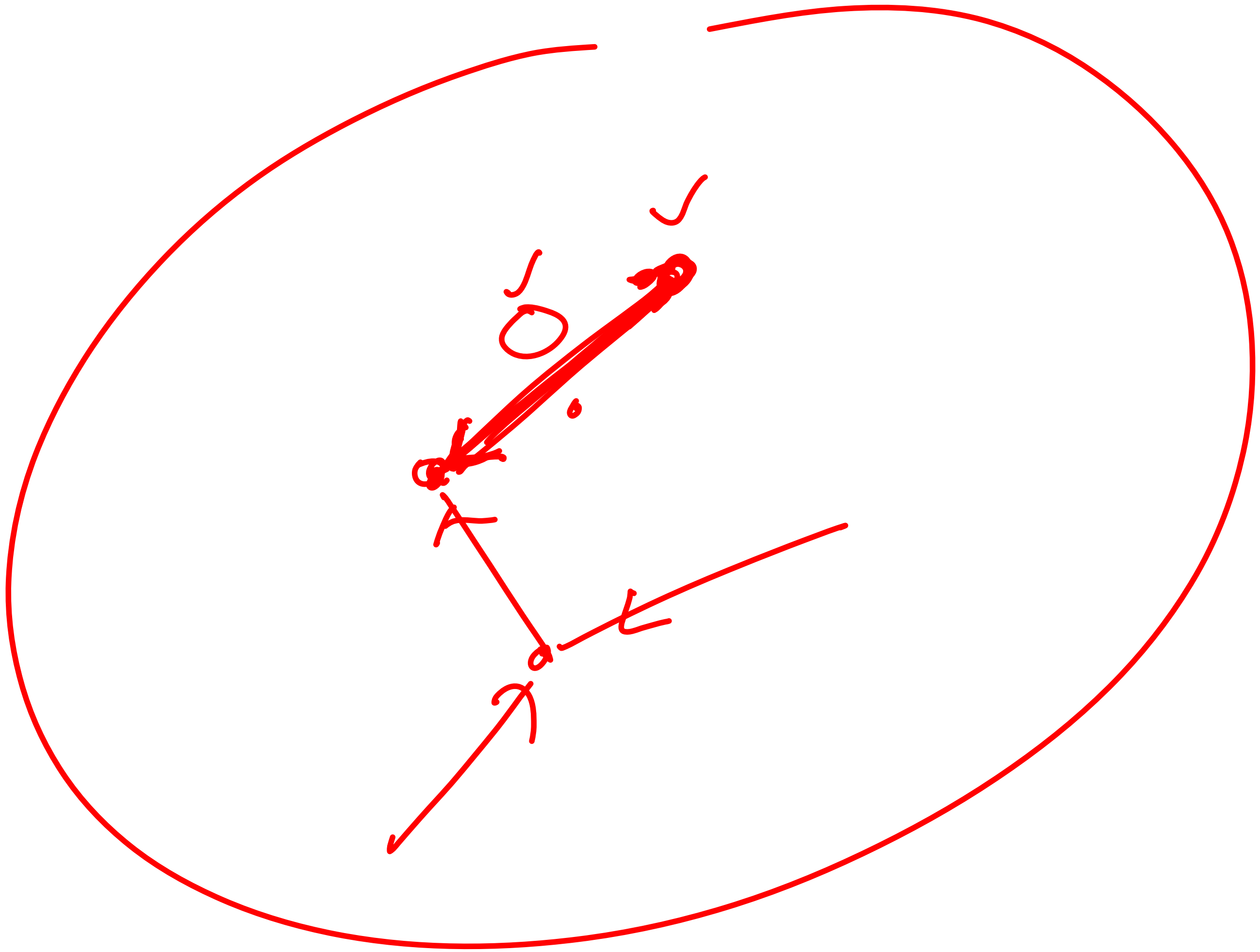
$$\boxed{\cancel{f^+(x)} - f^-(x) \le 0}$$

$\boxed{Z_k}$



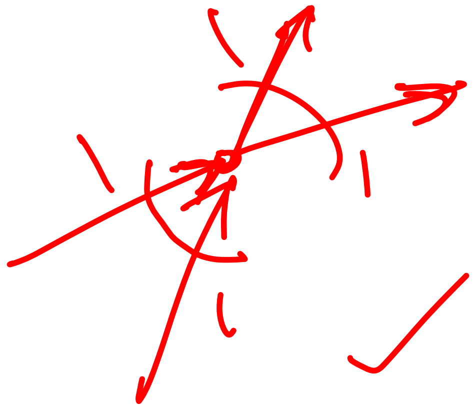


v
u
-ve excess.
k - f(a)
+ve excess



even

2



$$-1 \le f(a) \le 1$$

-1 $\quad$ $+1$