

Assignment-4,  $n = \text{individual location.}$

Let  $f_1(\vec{x}) = \text{Uni}_{\text{dist}}$

$$f_2(\vec{x}) = \sup_{\text{dist}}$$

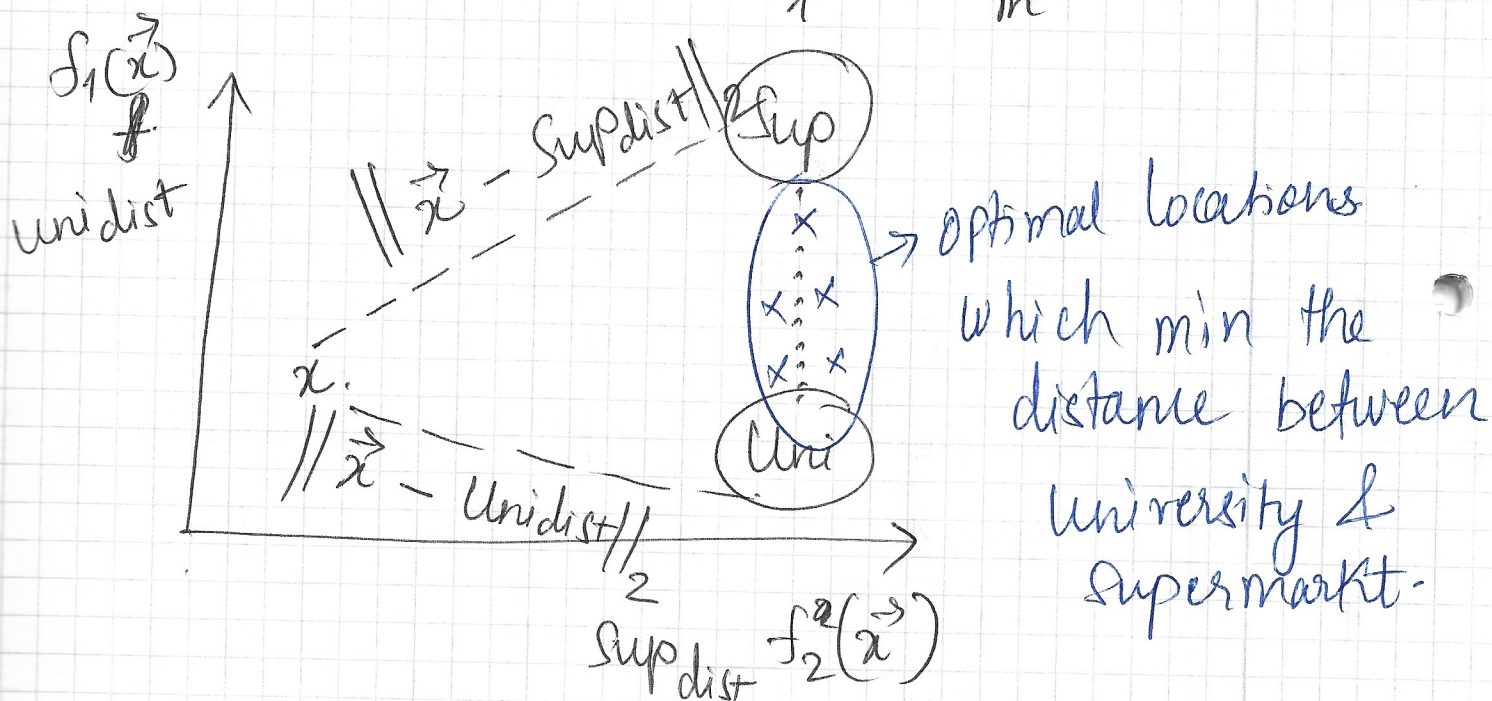
map can be formulated as,

Minimize  $\{f_1(\vec{x}), f_2(\vec{x})\}$

s.t.  $\vec{x} \in \mathbb{R}^2$

objective variables:  $Uni_{dist}$ ,  $Sup_{dist}$

decision variables:  $\vec{x}_1, \dots, \vec{x}_m$



distance can be euclidean or manhattan  
metric



Case - 2 New objective let  $f_3(\vec{x}) = \text{gym}_{\text{dist}}$

New MOP formulation,

$$\text{Minimize } \{ f_1(\vec{x}), f_2(\vec{x}), f_3(\vec{x}) \}$$

s.t.  $\vec{x} \in \mathbb{R}^3$

Objective variables:  $\text{Uni}_{\text{dist}}, \text{Sup}_{\text{dist}}, \text{gym}_{\text{dist}}$

Decision variables:  $\vec{x}_1, \dots, \vec{x}_m$

