Frage Youtube 20250514

- 2 Methoden für Normierung

MIN-MAX SCALER

$$x_i^* = \frac{x_i - x_{min}}{x_{max} - x_{min}}$$

⊕ SCHNELL

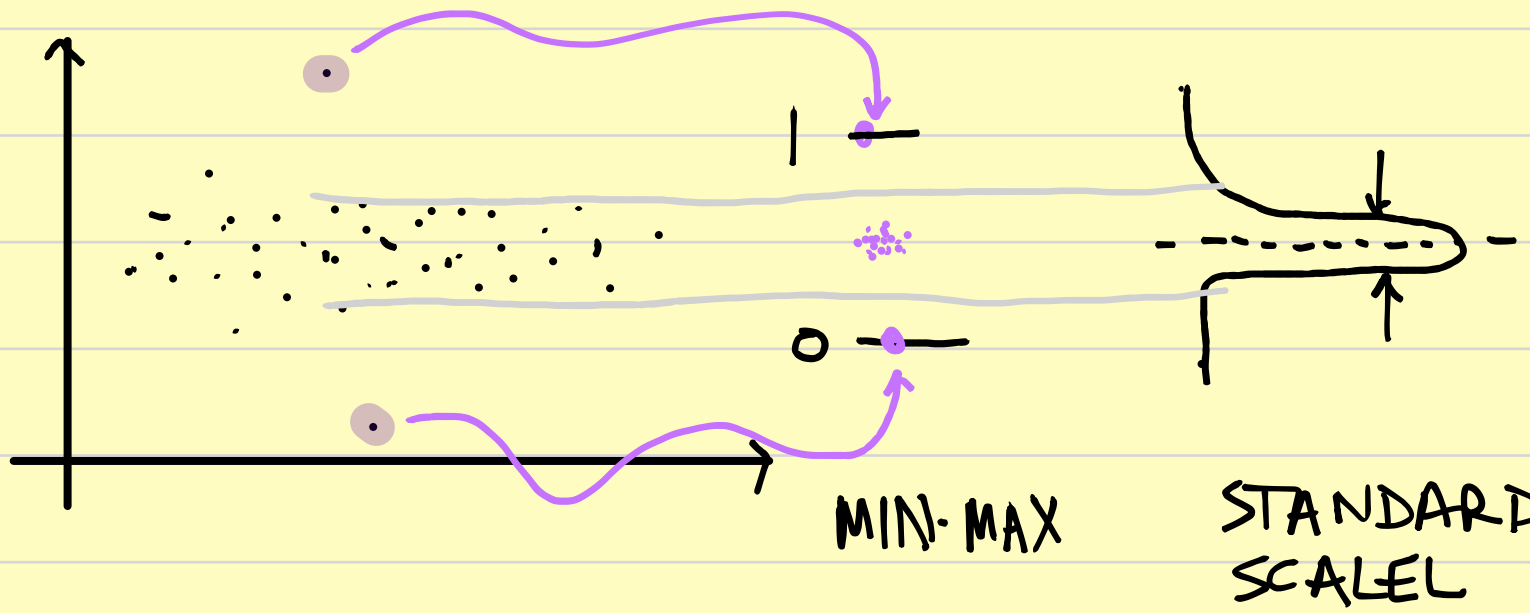
⊖ ANFÄLLIG GGÜ. AUßREIßER

STANDARD SCALER

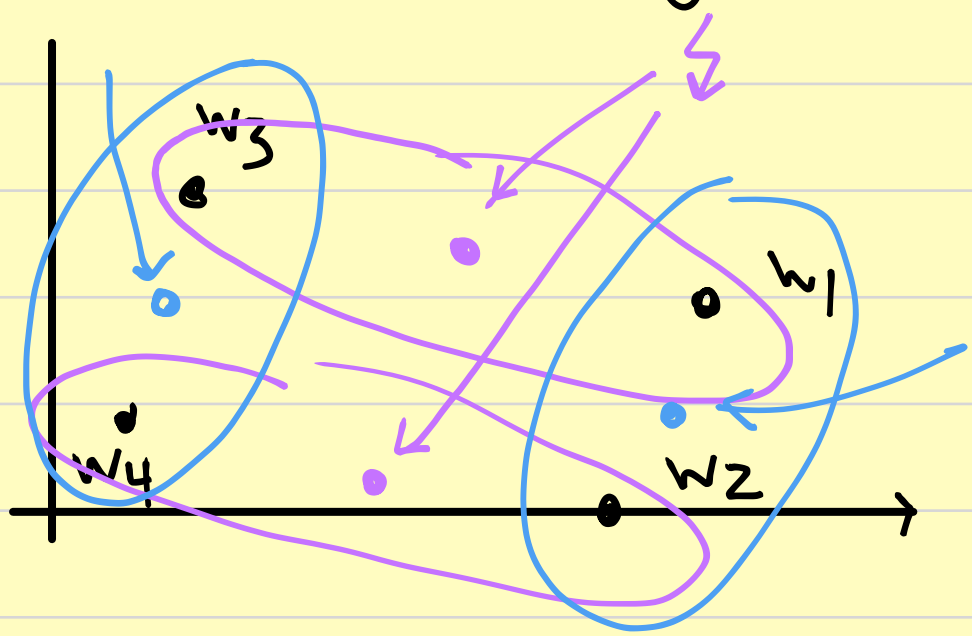
$$x_i^* = \frac{x_i - \mu}{\sigma} \quad N(0,1)$$

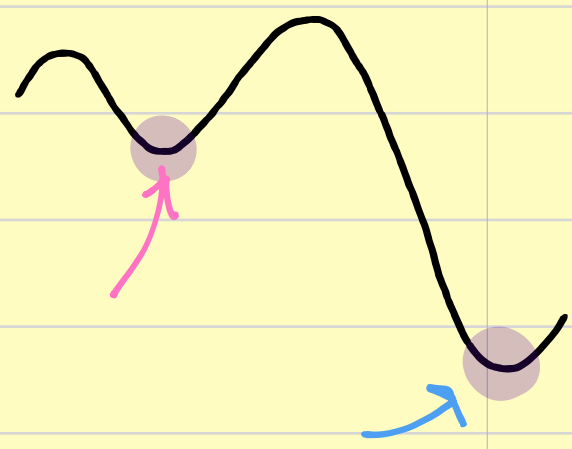
⊕ ROBUST

⊖ LANGSAMER



- Christian. Kann es sein, dass es mehrere MINIMA gibt bei k-Nearest Neighbours?





4. **Ex (20 Points):** Calculate the position of 2 warehouses for the plants with the X, Y positions using known clustering algorithms:

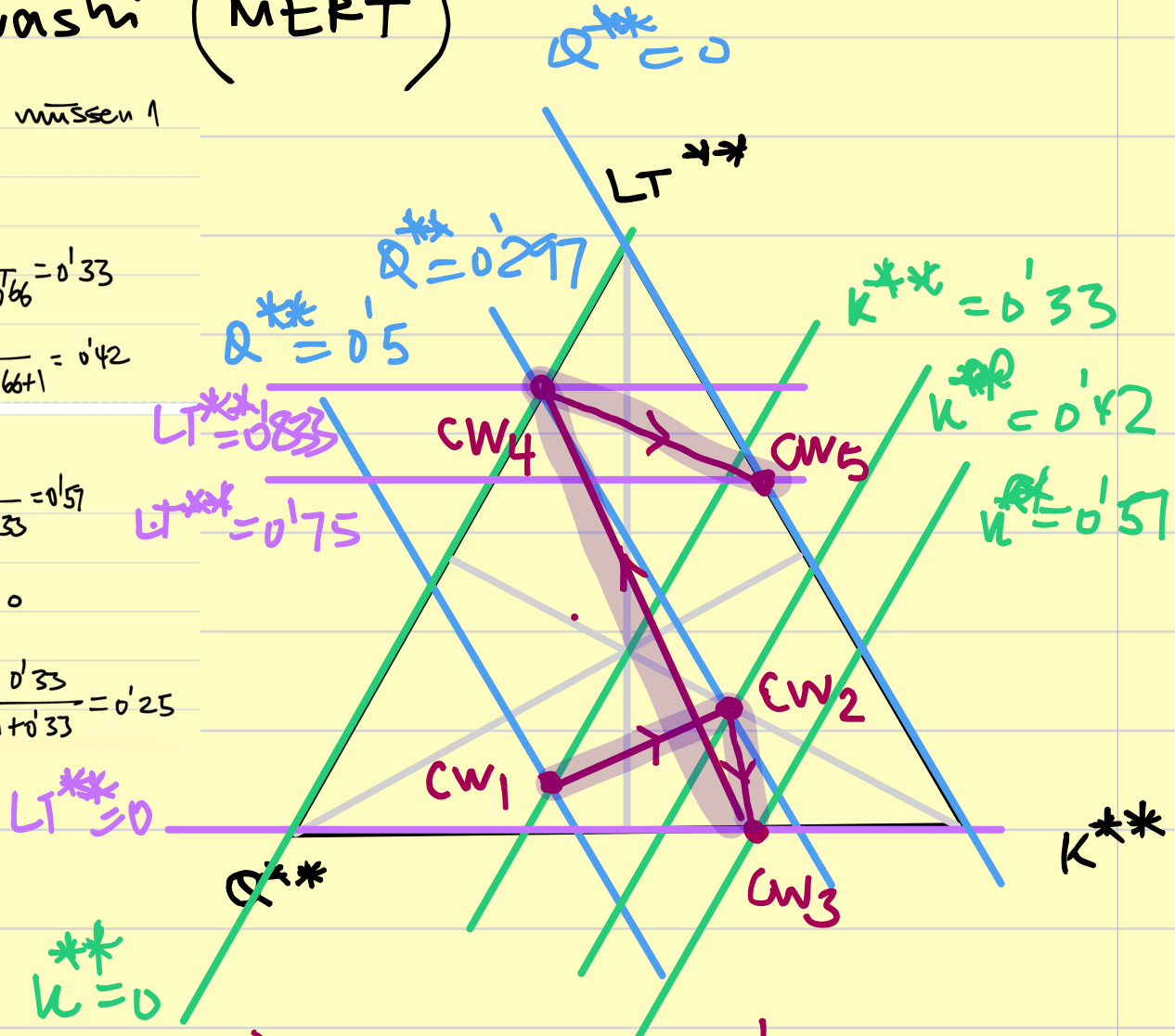
$$[X, Y] = \{\text{Plant 1 } (2,3), \text{Plant 2 } (0,2), \text{Plant 3 } (6,2), \text{Plant 4 } (6,0)\}$$

. Please start your calculation with clusters C_1 $[Plant1, Plant3]$, and C_2 $[Plant2, Plant4]$.

• Frage Nemawashi (MERT)

2. SCHRITT. Alle Werte der Zeitscheiben müssen 1 aufaddieren.

	Q**	LT**	K**
CW1	$\frac{1}{1+0'33+0'66} = 0'5$	$\frac{0'33}{1+0'33+0'66} = 0'167$	$\frac{0'66}{1+0'33+0'66} = 0'33$
CW2	$\frac{0'7}{0'7+0'66+1} = 0'297$	$\frac{0'66}{0'7+0'66+1} = 0'28$	$\frac{1}{0'7+0'66+1} = 0'42$
CW3	$\frac{0'25}{0'25+0'33} = 0'43$	0	$\frac{0'33}{0'25+0'33} = 0'57$
CW4	$\frac{0'1}{0'1+0'5} = 0'167$	$\frac{0'5}{0'1+0'5} = 0'833$	0
CW5	0	$\frac{1}{1+0'33} = 0'75$	$\frac{0'33}{1+0'33} = 0'25$

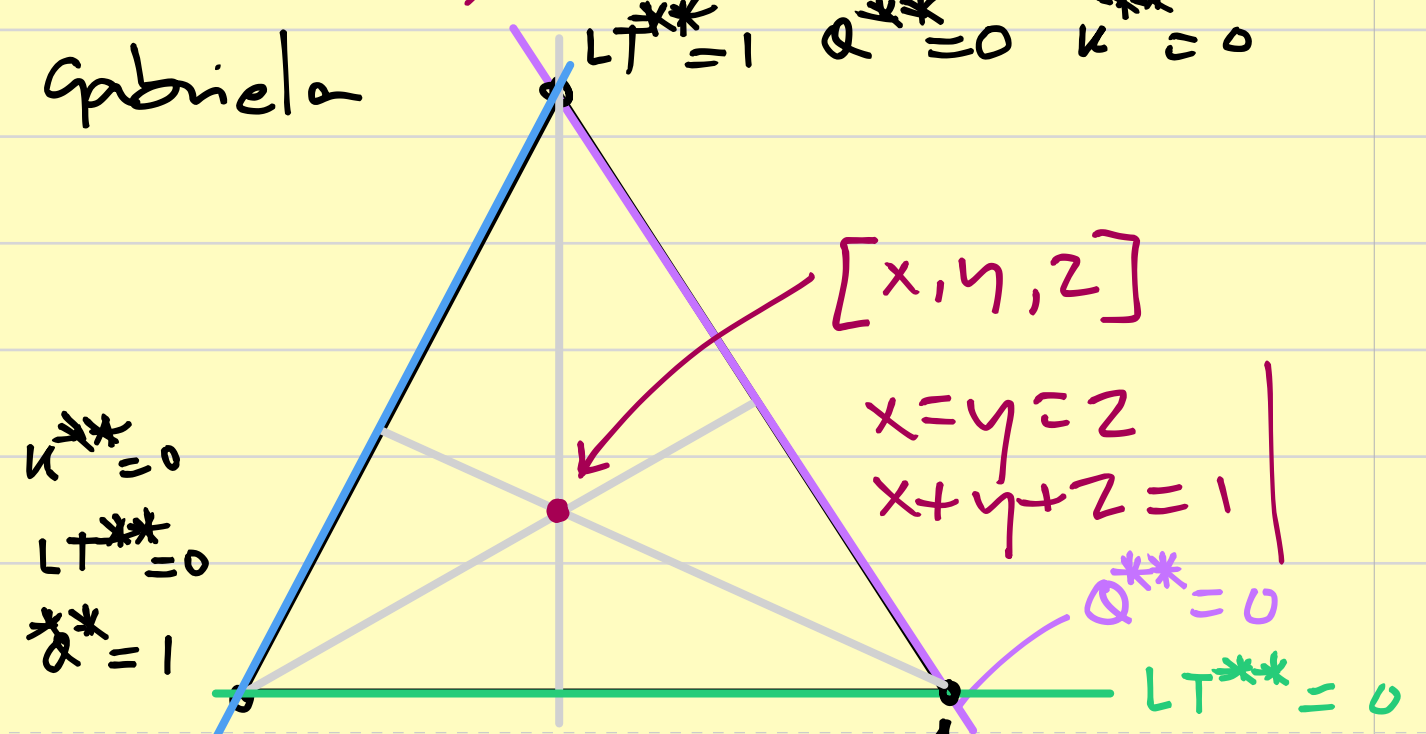


$d(CW_1\text{-}CW_2) > d(CW_2\text{-}CW_3) \rightarrow$ Alignment

$d(CW_2\text{-}CW_3) < d(CW_3\text{-}CW_4) \rightarrow$ Klein "

$d(CW_3\text{-}CW_4) > d(CW_4\text{-}CW_5) \rightarrow$ Alignment

• Frage Gabriela



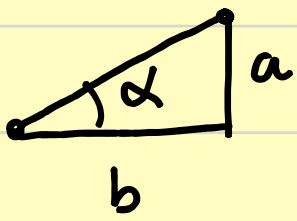
$k^{***}=0$

$k^{**}=1$

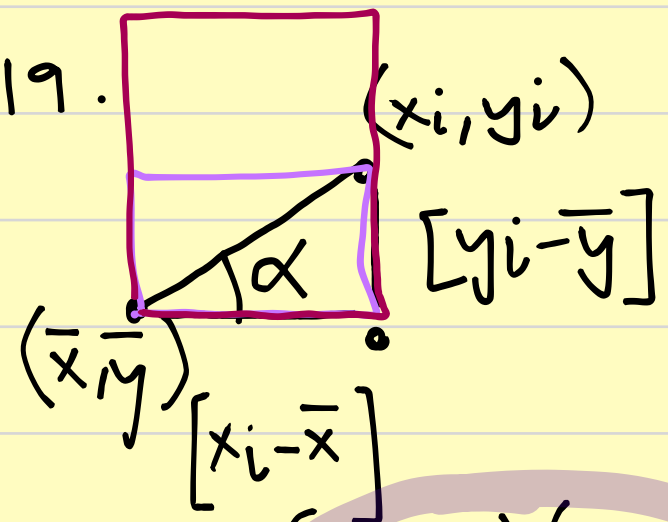
$\alpha^{***}=0$

$Ly^{***}=0$

- CHRISTIAN. 20250319.

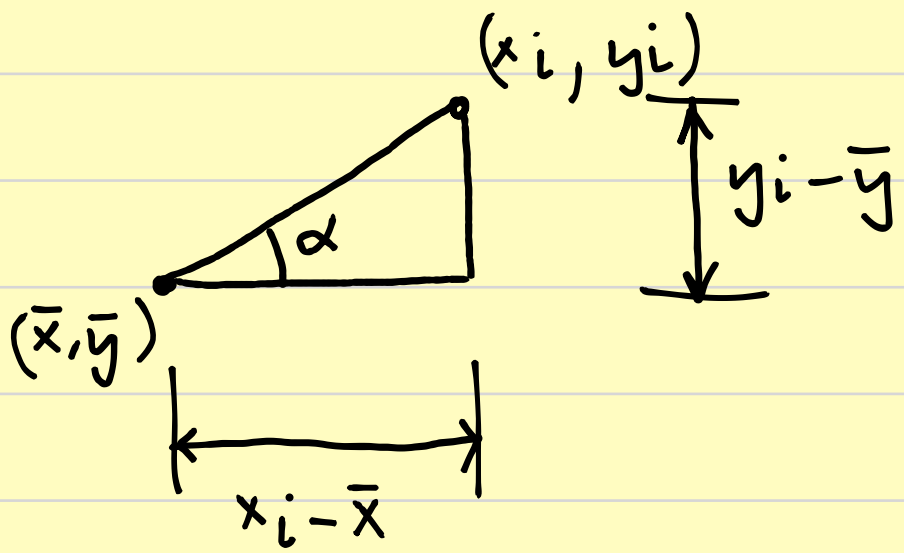


$$tg\alpha = \frac{a}{b}$$



$$tg\alpha = \frac{y_i - \bar{y}}{x_i - \bar{x}} \cdot \frac{x_i - \bar{x}}{x_i - \bar{x}} = \frac{(y_i - \bar{y})(x_i - \bar{x})}{(x_i - \bar{x})^2}$$

$$b = \sum_{i=1}^{n} \frac{(y_i - \bar{y})(x_i - \bar{x})}{(x_i - \bar{x})^2}$$



$$tg\alpha = \frac{y_i - \bar{y}}{x_i - \bar{x}} \cdot \frac{x_i - \bar{x}}{x_i - \bar{x}}$$

$$b = \sum \frac{(y_i - \bar{y})(x_i - \bar{x})}{(x_i - \bar{x})^2}$$