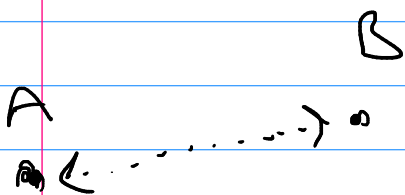


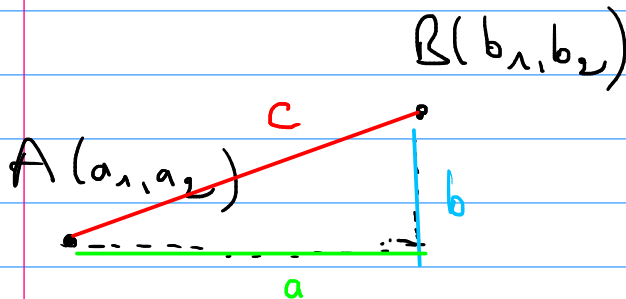
Vergleichen?

→ Darstellung?

Distanz (maß)



euklidische Distanz



$$\sqrt{(b_1 - a_1)^2 + (b_2 - a_2)^2}$$

$$a^2 + b^2 = c^2$$

$$\Rightarrow c = \sqrt{a^2 + b^2}$$

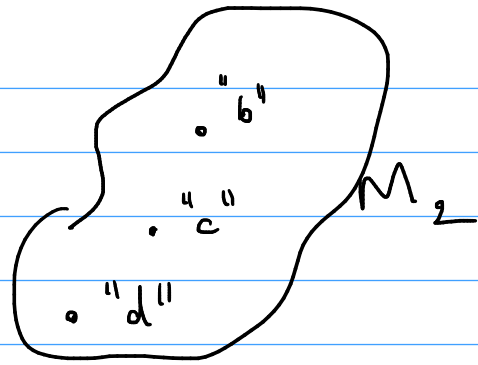
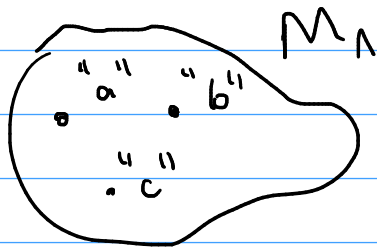
Ähnlichkeitsmaß

- HUND
 $\begin{array}{|c|c|c|} \hline 1 & \times & 1 \\ \hline \end{array}$
 HAND
 $\text{dist}(\text{HUND}, \text{HAND}) = 1$
 \hookrightarrow Hamming-Distanz

- ORT
 \curvearrowright
 ROT
 \curvearrowright
 TOR
 $\text{dist}(\text{ORT}, \text{ROT}) = 1$
 $\text{dist}(\text{ORT}, \text{TOR}) = 2$
 \hookrightarrow Jaro-Distanz

- PFERD
 $\begin{array}{|c|c|} \hline \downarrow & \downarrow \\ \hline \end{array}$
 PFADE^x
 $\text{dist}(\text{PFERD}, \text{PFADE}) = 3$
 \hookrightarrow Levenshtein-Dist.

"Ähnlichkeit



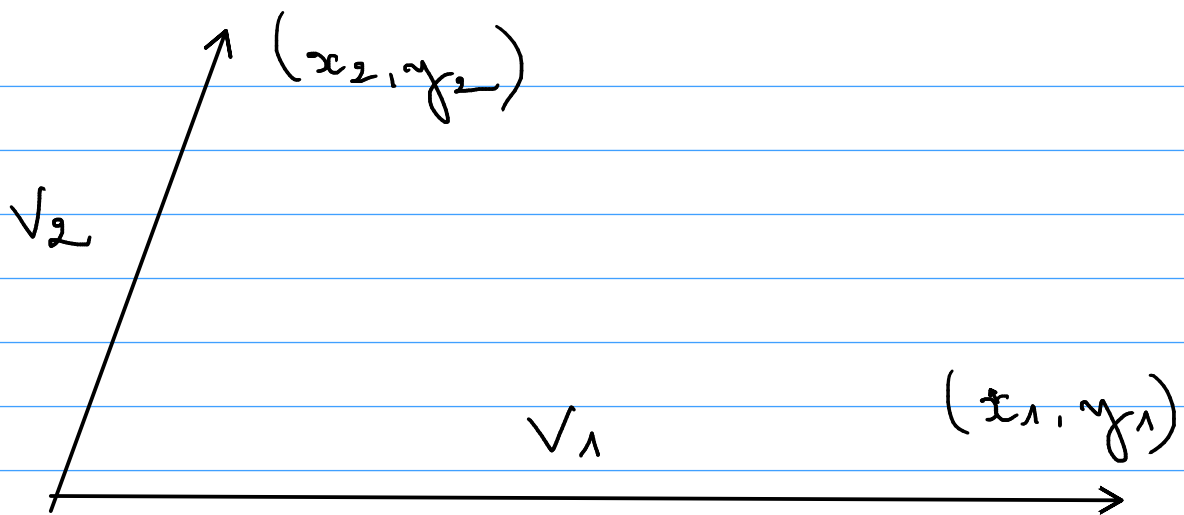
$$\frac{\text{gemeinsame Elemente}}{\text{Anzahl aller ETE}} = \frac{2}{4} = 0.5$$

BROT

ROT

$$\text{sim}(\text{BROT}, \text{ROT}) = 3$$

↳ Longest - Common - Subseq

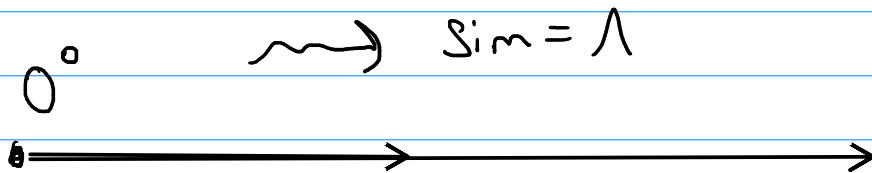
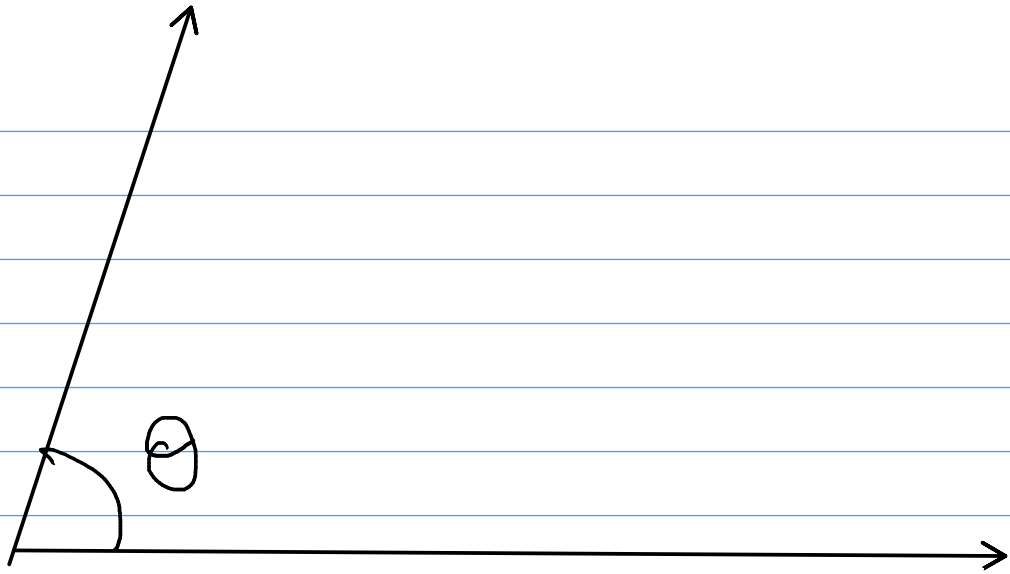


Skalarprodukt:

$$v_1 \cdot v_2 = x_1 \cdot x_2 + y_1 \cdot y_2 \quad (+ z_1 \cdot z_2)$$

$$\langle v_1, v_2 \rangle$$

$$\text{np.dot}(v_1, v_2)$$



$$\frac{\mathbf{v}_1 \cdot \mathbf{v}_2}{\|\mathbf{v}_1\| \|\mathbf{v}_2\|} = \cos(\theta)$$

