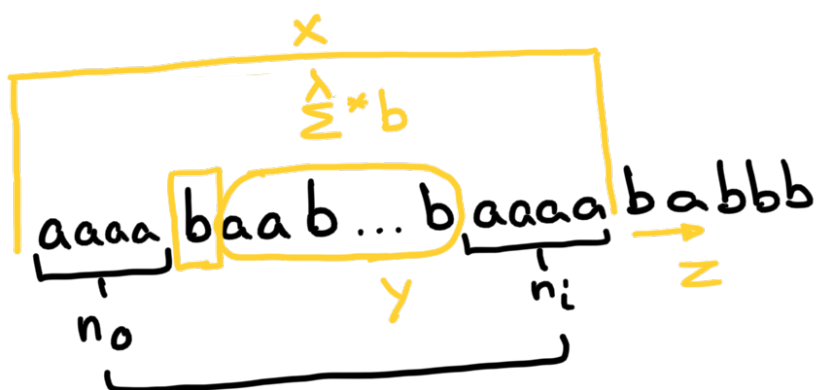


$$L_{13} = \{ a^{n_0} b a^{n_1} b \dots b a^{n_m} \mid m \geq 1 \wedge \exists i \subseteq \{1, m\} . n_0 = n_i \}$$



$$a^{n_0} = a^{n_i}$$

$$n_0 = n_i$$



$$\begin{aligned} S &\rightarrow X \cdot Z \\ X &\rightarrow a X a \mid b Y \\ Y &\rightarrow \lambda U \Sigma^* b \\ Z &\rightarrow \lambda U b \Sigma^* \end{aligned}$$

$$\underbrace{(a^n b (\underbrace{\lambda U \Sigma^* b}_Y) a^n)}_X \quad \underbrace{(\lambda U b \Sigma^*)}_Z$$

X

aaaa b aa b ... b aaaa

$\xrightarrow{Z=Y}$

$\underbrace{\hspace{10em}}_Y$

$$S \rightarrow X \cdot Y$$

$$X \rightarrow aXa \mid Yb$$

$$Y \rightarrow \lambda \cup b\Sigma^*$$

$$Y \rightarrow bZ \mid \lambda$$

$$Z \rightarrow aZ \mid bZ \mid \lambda$$

Nos simplifica la vida
esta opción dado que

Aprovechamos la Y
dado que es un
lenguaje cualquiera
igual que la Z
anterior