

$$\mathcal{L}_6 = \{w \in \{a,b\}^* / |w|_a = |w|_b\}$$

$$V = \{$$

$$T = \{$$

$$P = \{S \rightarrow \lambda / bA / aB$$

$$A \rightarrow aS / bAA$$

$$B \rightarrow bS / aBB$$

$$\mathcal{L}_7 = \{a^m b^{2m} c^m d^{2m} / m \geq 0 \text{ e } m \geq 0\}$$

$$V = \{$$

$$T = \{$$

$$P = \{S \rightarrow aSdd / bbbBc / \lambda$$

$$B \rightarrow bbbBc / \lambda\}$$

$$S = S$$

$$\mathcal{L}_{11} = \{a^m b^m c^m d^m / m \geq 0, m \geq 0\}$$

$$V = \{$$

$$T = \{$$

$$P = \{S \rightarrow AB$$

$$A \rightarrow aAb / \lambda$$

$$B \rightarrow cBd / cd$$

$$S = S$$

$$\mathcal{L}_{12} = \{a^m b^{2m+1} / m \geq 0\}$$

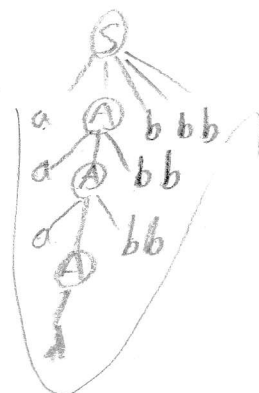
$$V = \{S, A\}$$

$$T = \{a, b\}$$

$$P = \{S \rightarrow aAbbb$$

$$A \rightarrow \lambda / aAbb\}$$

$$S = S$$



$$\mathcal{L}_{13} = \{a^m b^{2m+2} / m \geq 0\}$$

$$V = \{S, A\}$$

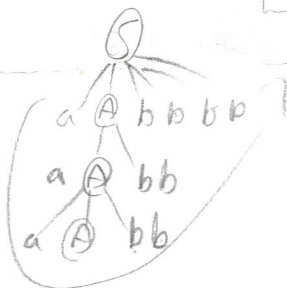
$$T = \{a, b\}$$

$$P = \{S \rightarrow aAbbbb$$

$$A \rightarrow aAbb\}$$

$$S = S$$

$$a^m b^{2m+2}$$



$$\mathcal{L}_{14} = \{a^m b^{m/2} / m \geq 0 \text{ e } m \text{ é par}\}$$

$$V = \{$$

$$T = \{a, b\}$$

$$P = \{S \rightarrow aaAb$$

$$A \rightarrow aaAb / \lambda\}$$

$$S = S$$

$$a^m b^{m/2}$$



$$\mathcal{L}_{15} = \{a^m b^{m/3} / m \geq 0 \text{ e } m \text{ é múltiplo de 3}\}$$

$$V = \{$$

$$T = \{a, b\}$$

$$P = \{S \rightarrow aaaAb$$

$$A \rightarrow aaaAb / \lambda\}$$

$$S = S$$

$$a^m b^{m/3}$$

