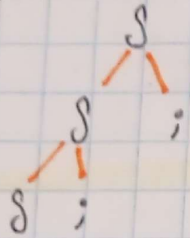


# Ejercicios Unidad 3

1- Cadena

Gramática:  $S \rightarrow Ss; | s;$

b) árbol sintáctico

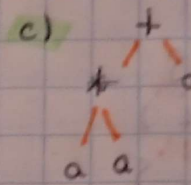
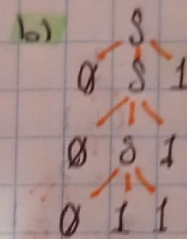
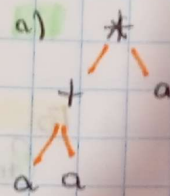


3 a) Gramática:  $S \rightarrow SS + | SS^k | a$  con la cadena  $a+a$

b) Gramática:  $S \rightarrow 0S1101$  con la cadena  $000111$

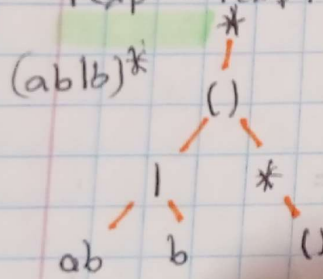
c) Gramática:  $S \rightarrow +SS | ^kSS | a$  con la cadena  $+^k a$

Árboles



2- Árbol sintáctico

$rexpr \rightarrow rexpr | rexpr rexpr | rexpr ( rexpr ) | lexpr$

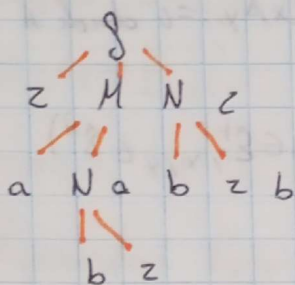


4-  $S \rightarrow xSx | \epsilon$

lenguajes

$\epsilon, xy, xxyy, xxxyyy, xxxxyyyy, \dots$

## 5- Arbol sintactico $zazabzabz$



## 6- Demostrar ambigüedad

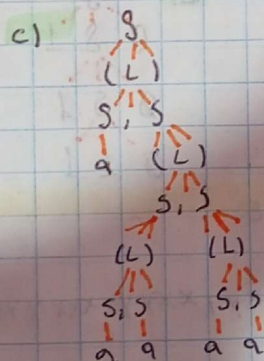
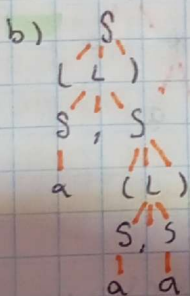
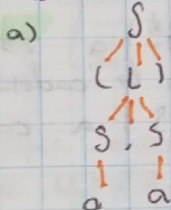
$S \rightarrow ictS$   
 $S \rightarrow ictS_2S$   
 $S \rightarrow s$

Demostración:  $(ict(ict(scs)))$

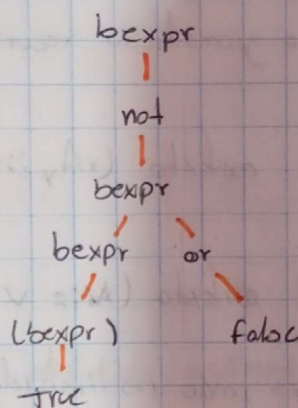
## 7- Gramaticas

$S \rightarrow (L)la$   $L \rightarrow L, S \mid s$

Arboles:



## 8- Arbol semantico



## 9- Gramaticas

$S \rightarrow 1S \mid 0T$   
 $T \rightarrow 1T \mid 1$

## 10- Eliminar recipidad 129.

$S \rightarrow (L)la$   
 $L \rightarrow L, S \mid s$

$S \rightarrow (L)la$   
 $L \rightarrow SL$   
 $L \rightarrow , SL \mid \epsilon$

## 12-

## 13-

Gramatica original:

$E \rightarrow E + T \mid T$   
 $T \rightarrow T * F \mid F \mid F$   
 $F \rightarrow (E) \mid id$

Reata y división

$E \rightarrow E + T \mid E - T \mid T$   
 $T \rightarrow + * F \mid T / F \mid F$   
 $F \rightarrow (E) \mid id \mid num$

quitando recipidad por la izquierda

$E \rightarrow T E'$   
 $E' \rightarrow + T E' \mid - T E' \mid \epsilon$

$T \rightarrow F T'$   
 $T' \rightarrow * F T' \mid / F T' \mid \epsilon$