

# GRAMMAR

$E \rightarrow E + E$

$E \rightarrow E * E$

$E \rightarrow id$

Input string: id+id+id

$E \rightarrow E + E$

$E + E + E$

Id + E + E

Id + id + E

Id + id + id

**a+b = 535**

**a\*b = 545**

**(a) = 152**

**( = 1**

**) = 2**

**+ = 3**

**\* = 4**

**Digit = 5**

Declare two character arrays str[],token[] and initialize integer variables a=0,b=0,c,d. Input the string from the user.

If str[a] == '(' then token[b] = '1', b++.

If str[a] == ')' then token[b] = '2', b++.

If str[a] == '+' then token[b] = '3', b++.

If(str[a] == '\*') then token[b] = '4', b++.

If(str[a] == digit ) then token[b] = '5', b++.

Print token[b]

while token[b] != NULL if

((token[b] == '5') && (token[b+1] == '3') && (token[b+2] == '5'))

((token[b] == '5') && (token[b+1] == '4') && (token[b+2] == '5'))

((token[b] == '1') && (token[b+1] == '5') && (token[b+2] == '2'))

Then token[b] = '5';

c = b+1;

while token[c] != NULL -> token[c] = token[c+2], c++;

else -> b++;

Compare if token == "5" then It is a Grammar

Else Not a Grammar