

Compiladores – Exemplo Código Intermediário

Eduardo Marques

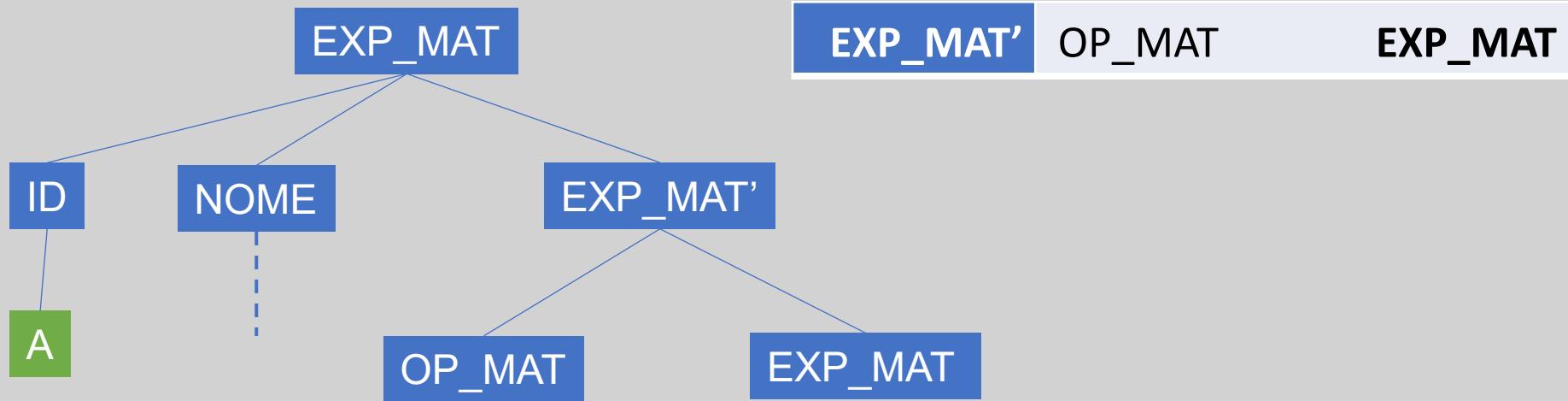
Regra EXP_MAT

EXP_MAT	ID	NOME	EXP_MAT'
	NUMERO		EXP_MAT'
EXP_MAT'	OP_MAT	EXP_MAT	
	ε		

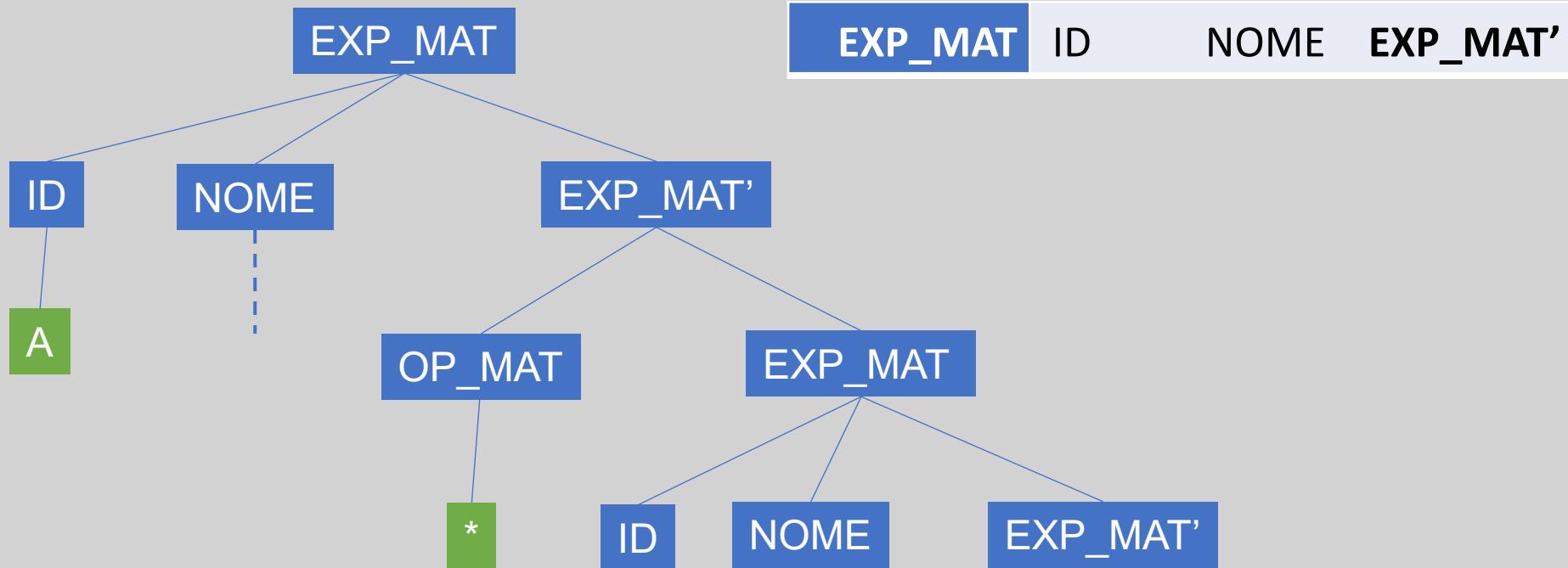
Exemplo: A * B



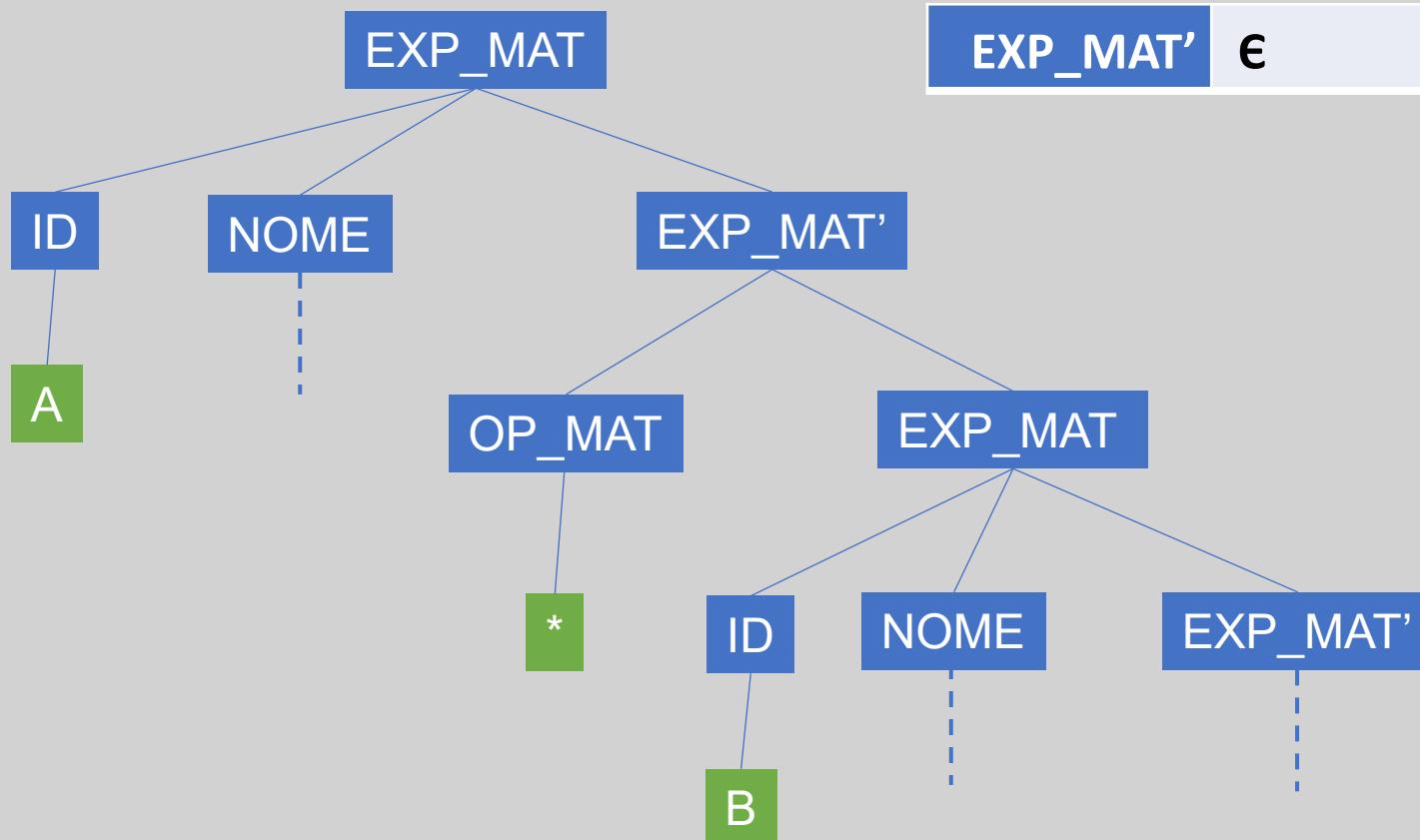
Exemplo: A * B



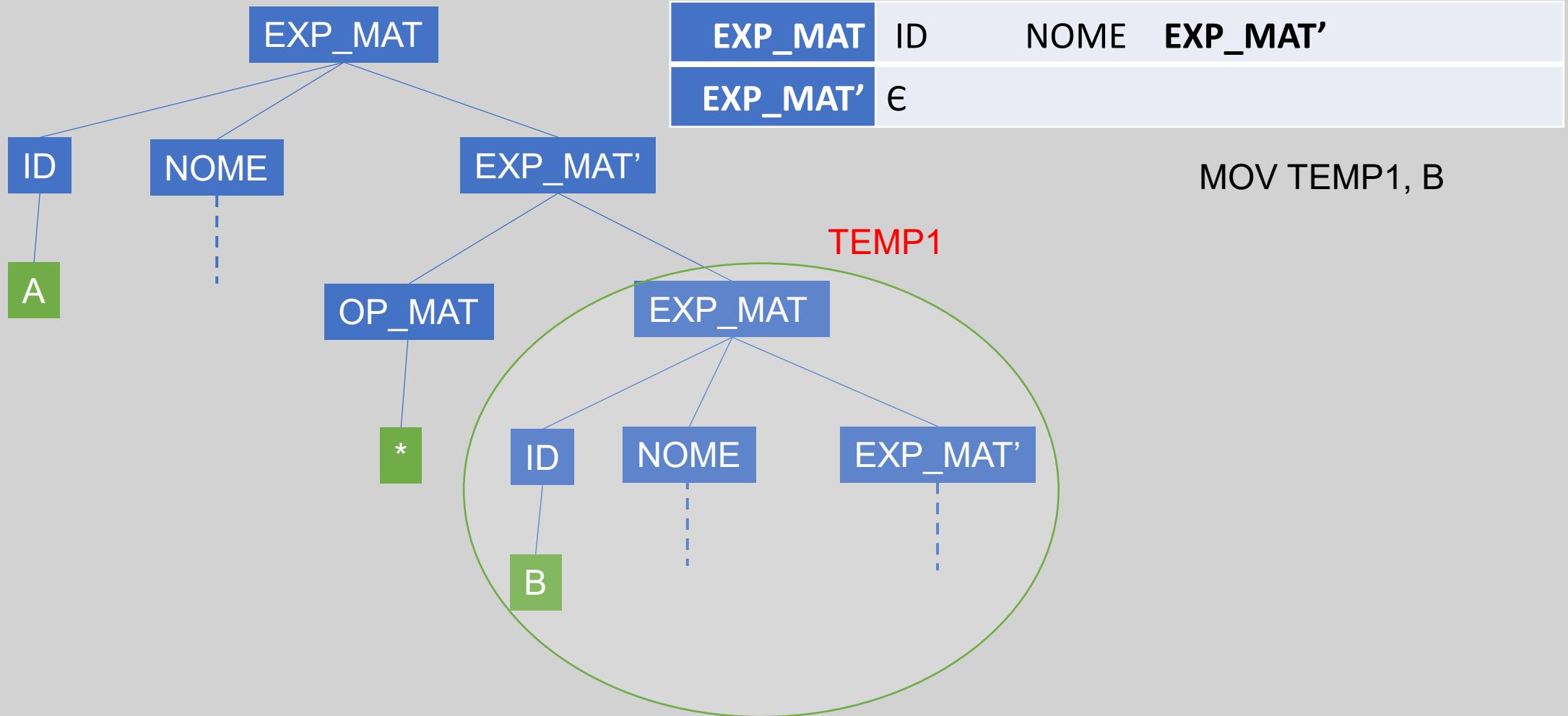
Exemplo: A * B



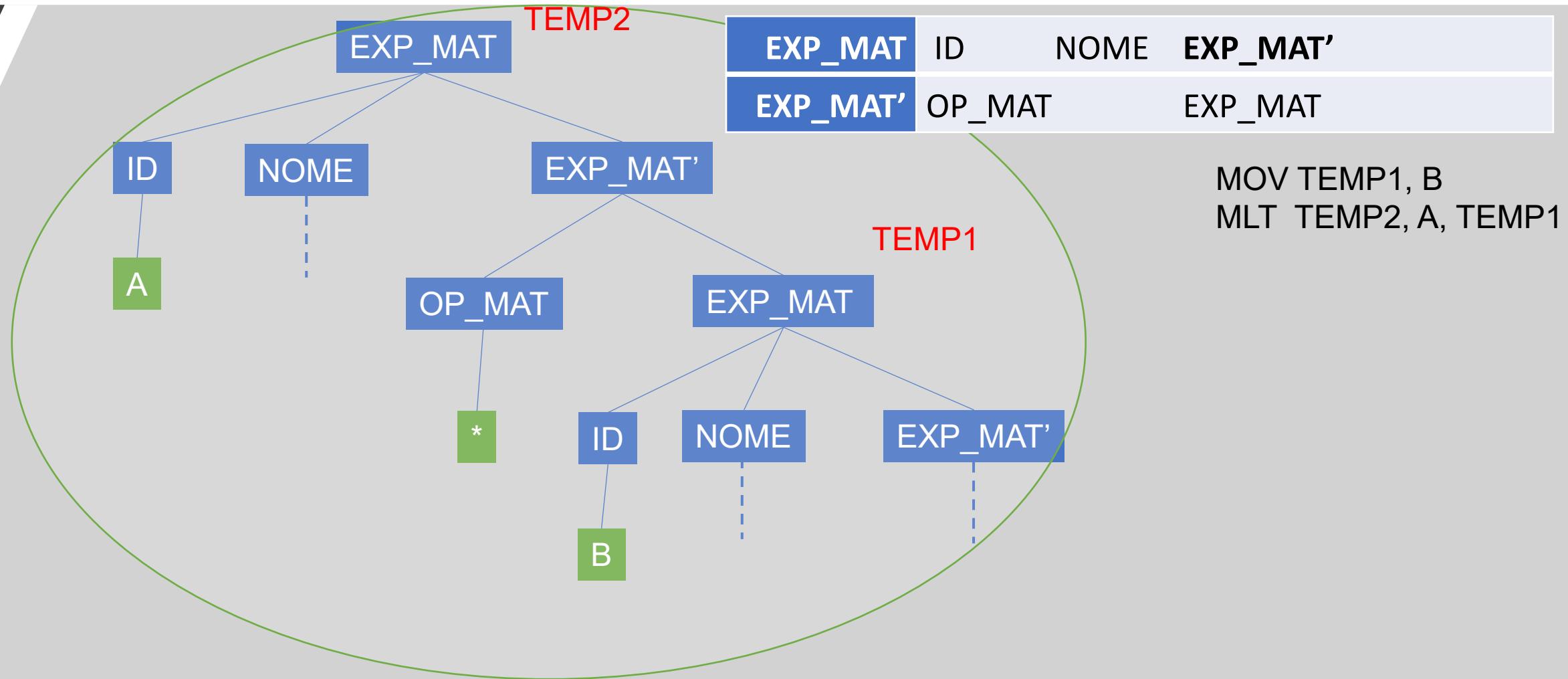
Exemplo: A * B



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Exemplo: A * B



Instrução da regra EXP_MAT

EXP_MAT	ID	NOME	EXP_MAT'
EXP_MAT'	OP_MAT	EXP_MAT	

OP_MAT TEMP, ID, TEMP_EXP_MAT

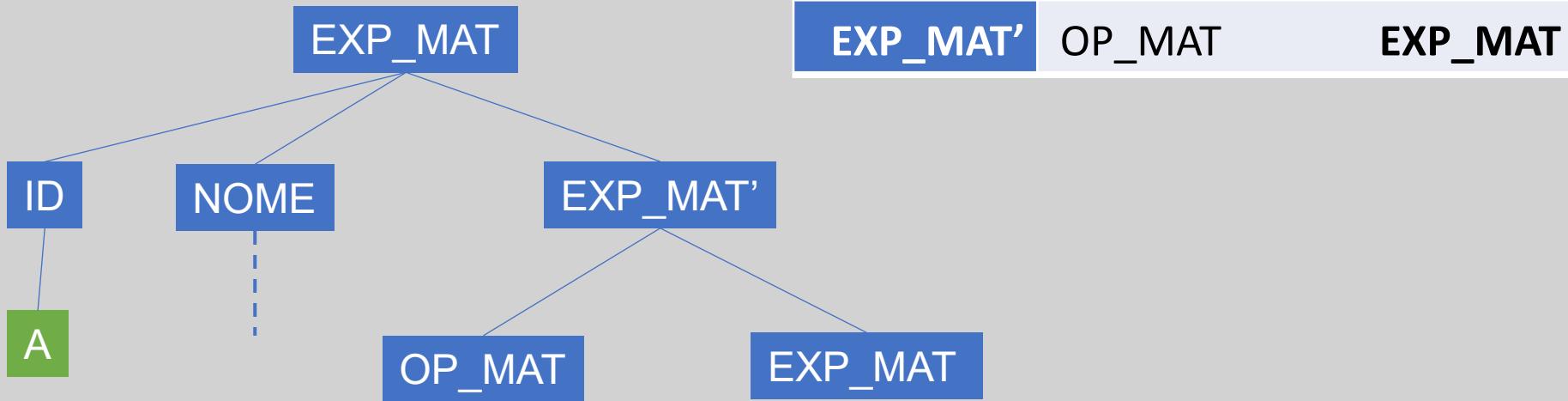
EXP_MAT	ID	NOME	EXP_MAT'
EXP_MAT'	€		

MOV TEMP, ID

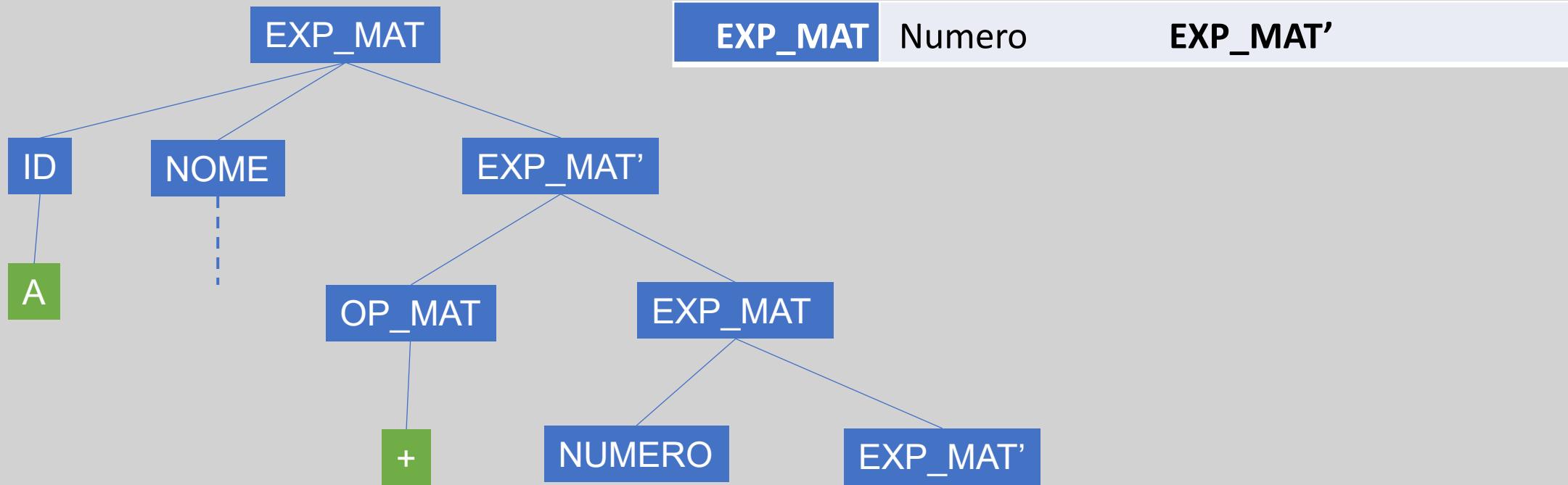
Exemplo: A + 10



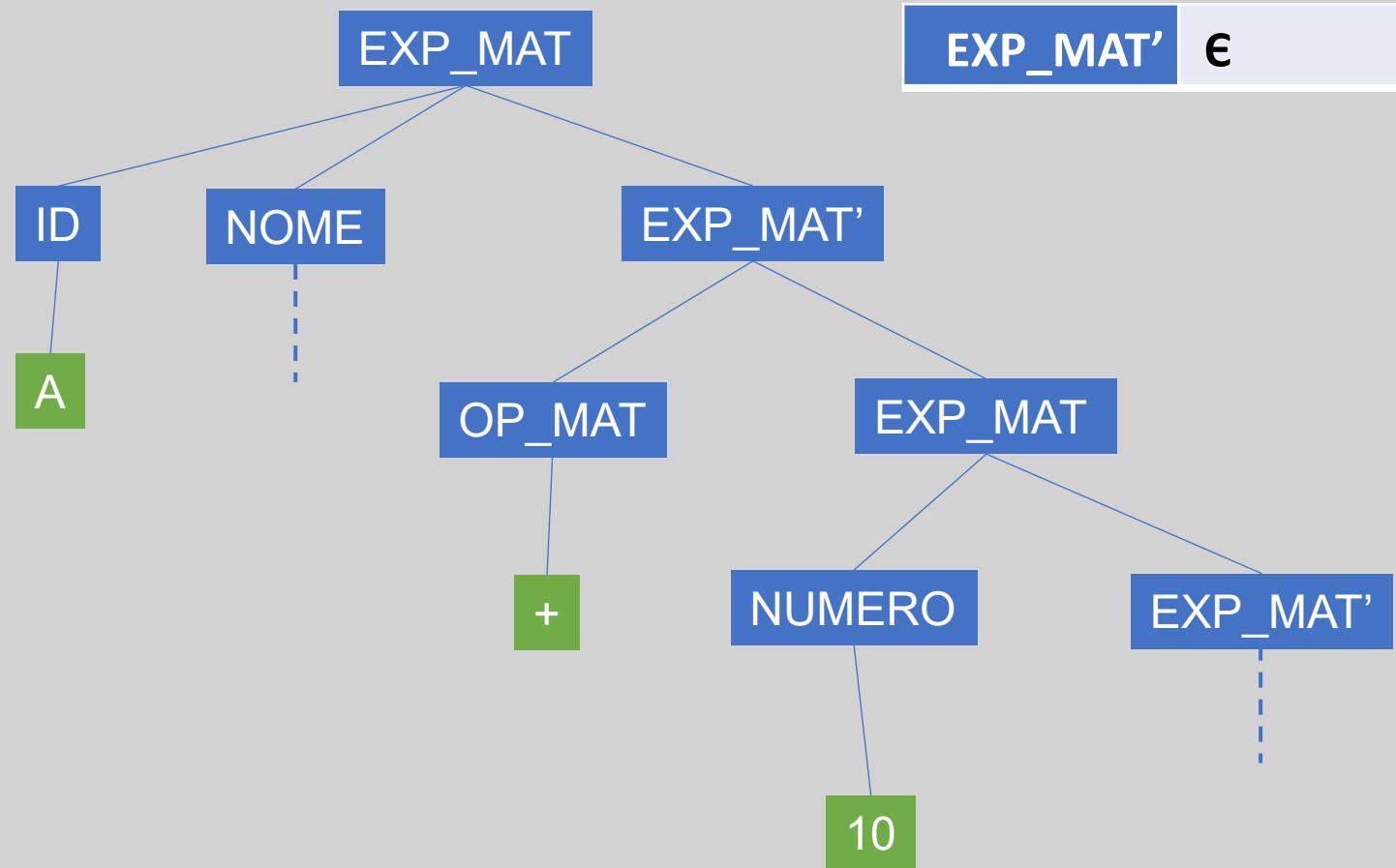
Exemplo: A + 10



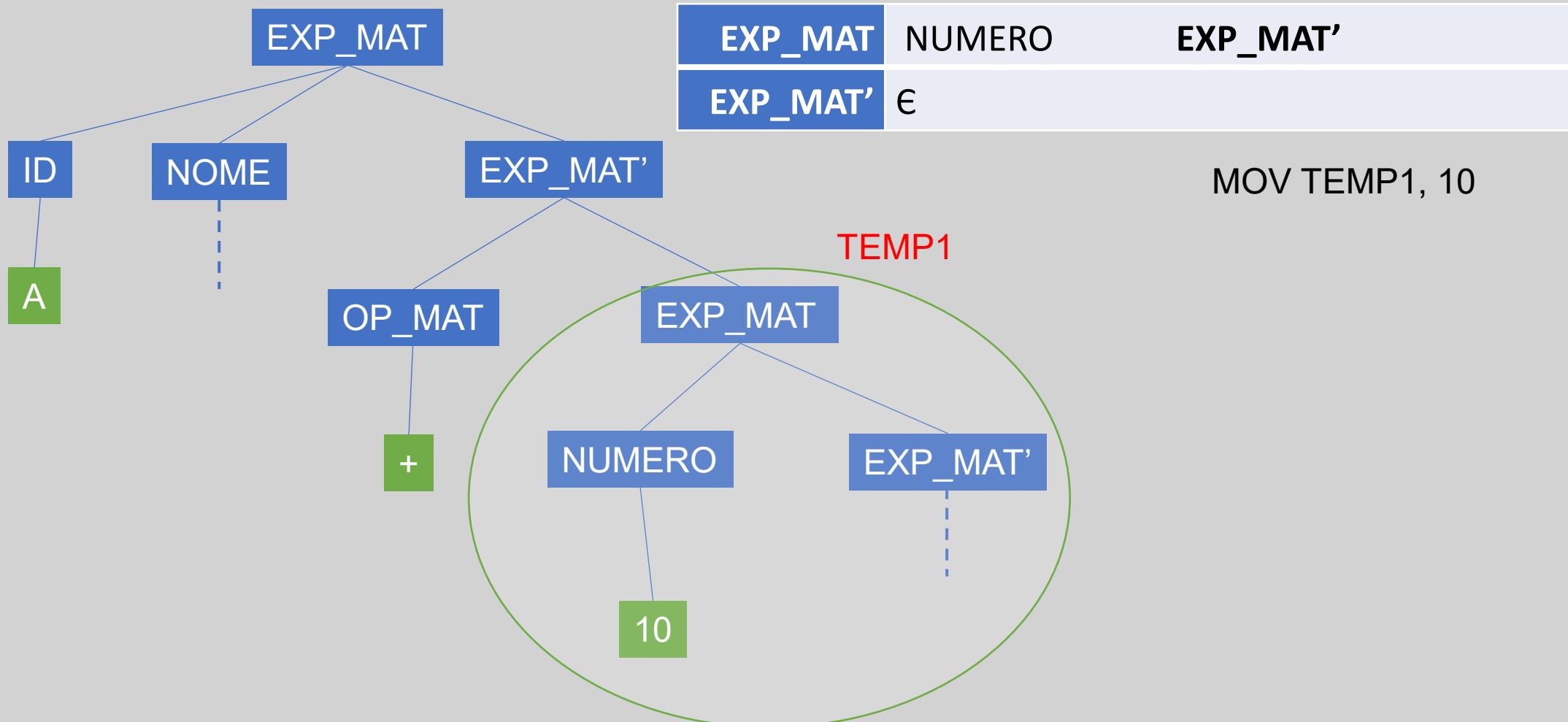
Exemplo: A + 10



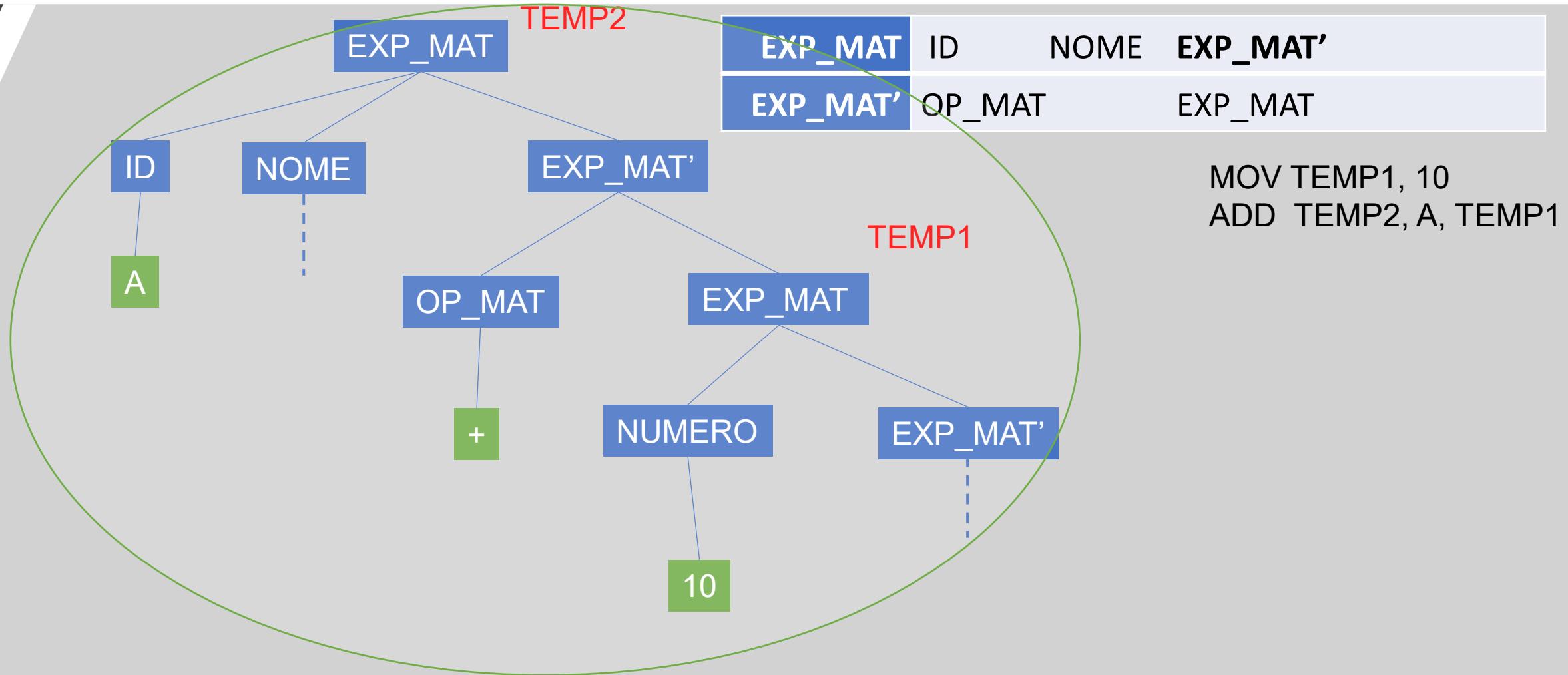
Exemplo: A + 10



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Instrução da regra EXP_MAT

EXP_MAT	NUMERO	EXP_MAT'
EXP_MAT'	OP_MAT	EXP_MAT

OP_MAT TEMP, NUMERO, TEMP_EXP_MAT

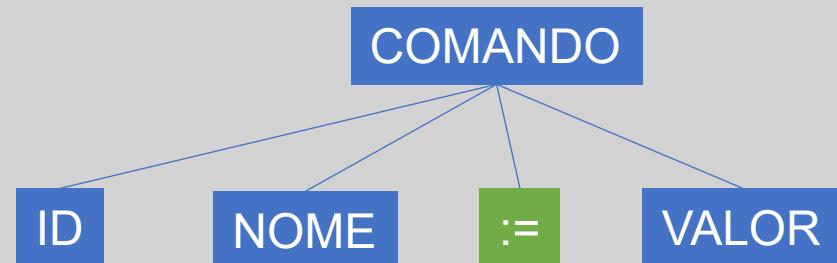
EXP_MAT	NUMERO	EXP_MAT'
EXP_MAT'	€	

MOV TEMP, NUMERO

Regra COMANDO

COMANDO	ID	NOME	$::=$	VALOR		
	while	EXP_LOGICA			BLOCO	
	if	EXP_LOGICA	then		BLOCO	ELSE
	write	CONST_VALOR				
	read	ID	NOME			
VALOR	ID	VALOR'				
	NUMERO		EXP_MAT'			
VALOR'	NOME	EXP_MAT'				
	(LISTA_NOME)			

Exemplo: A := B + 10

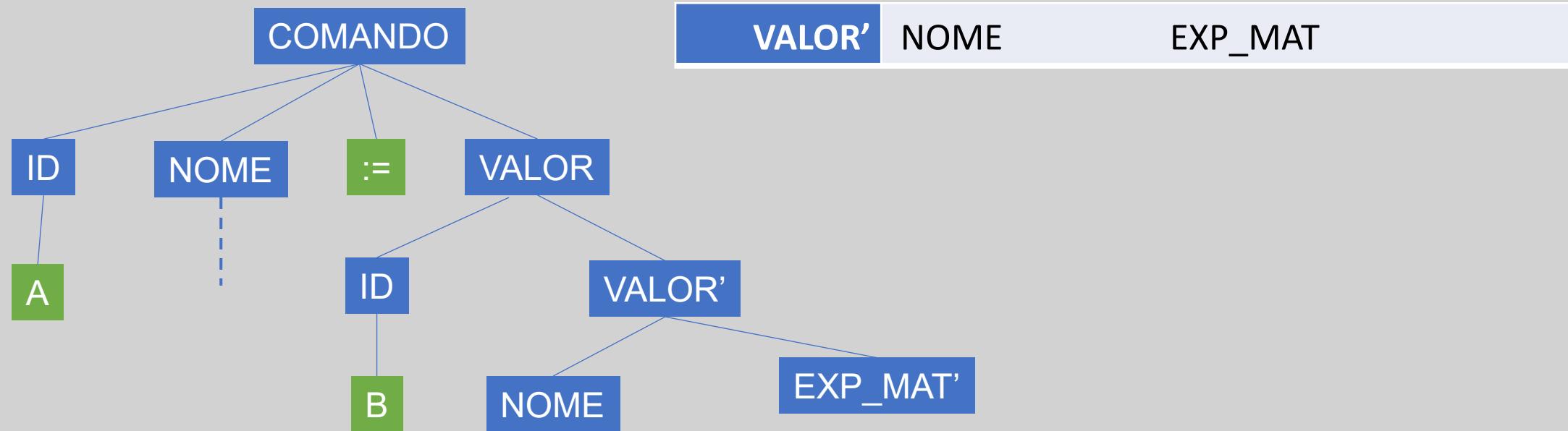


COMANDO	ID	NOME	:=	VALOR

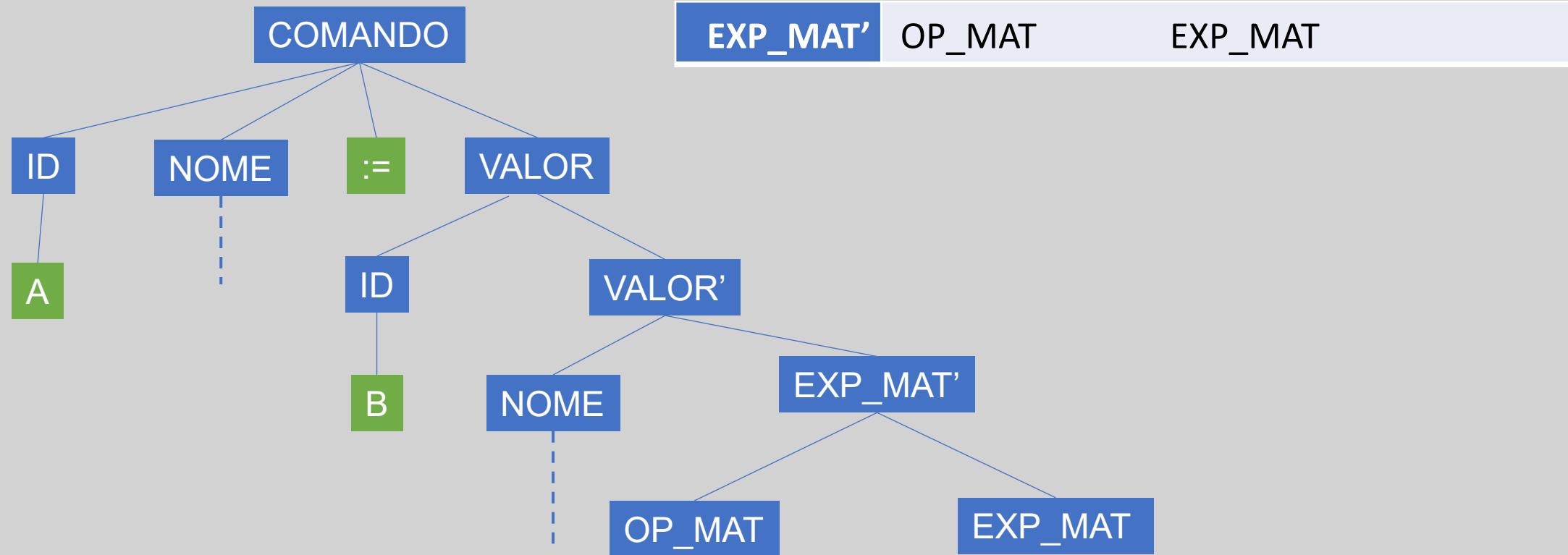
Exemplo: A := B + 10



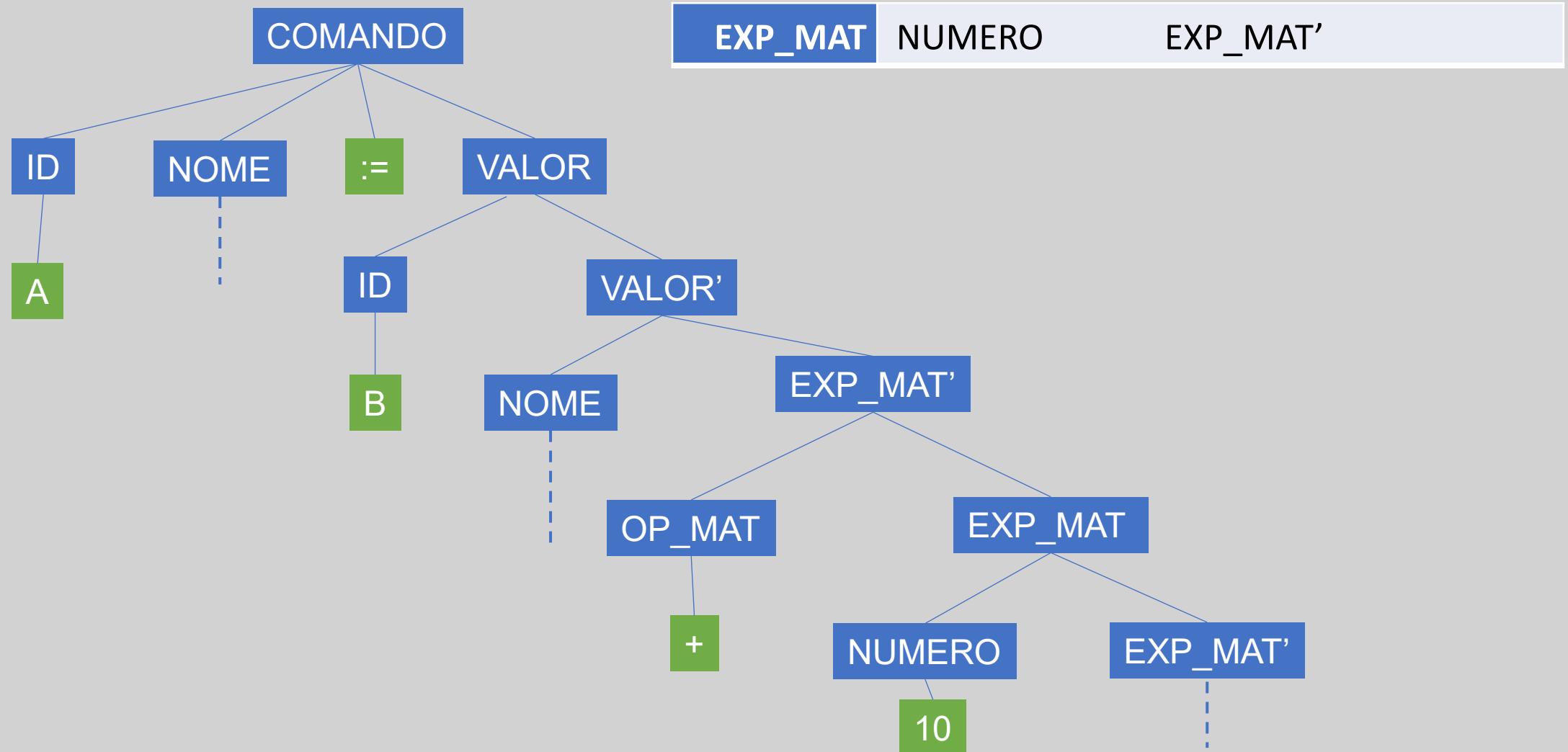
Exemplo: A := B + 10



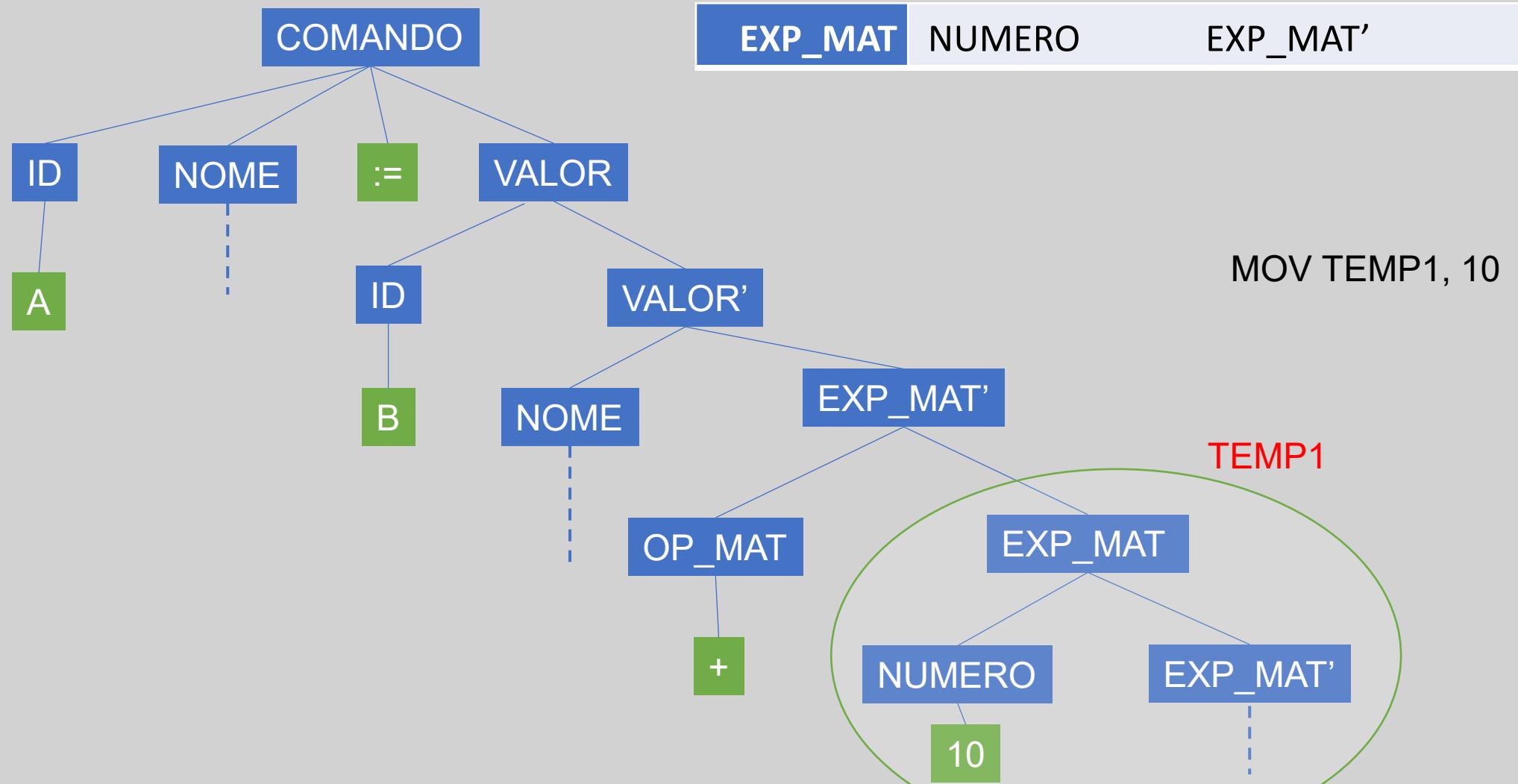
Exemplo: A := B + 10



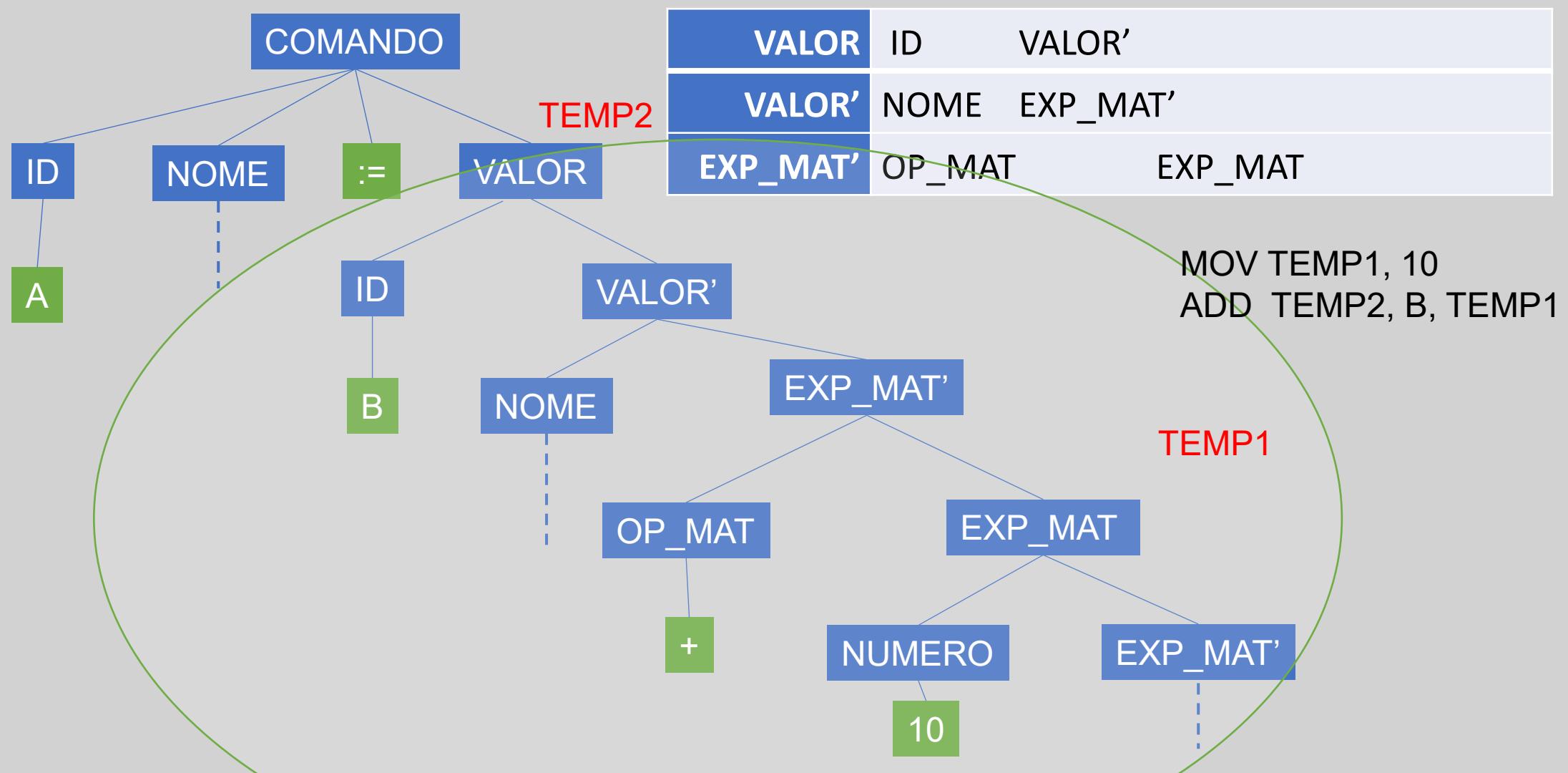
Exemplo: A := B + 10



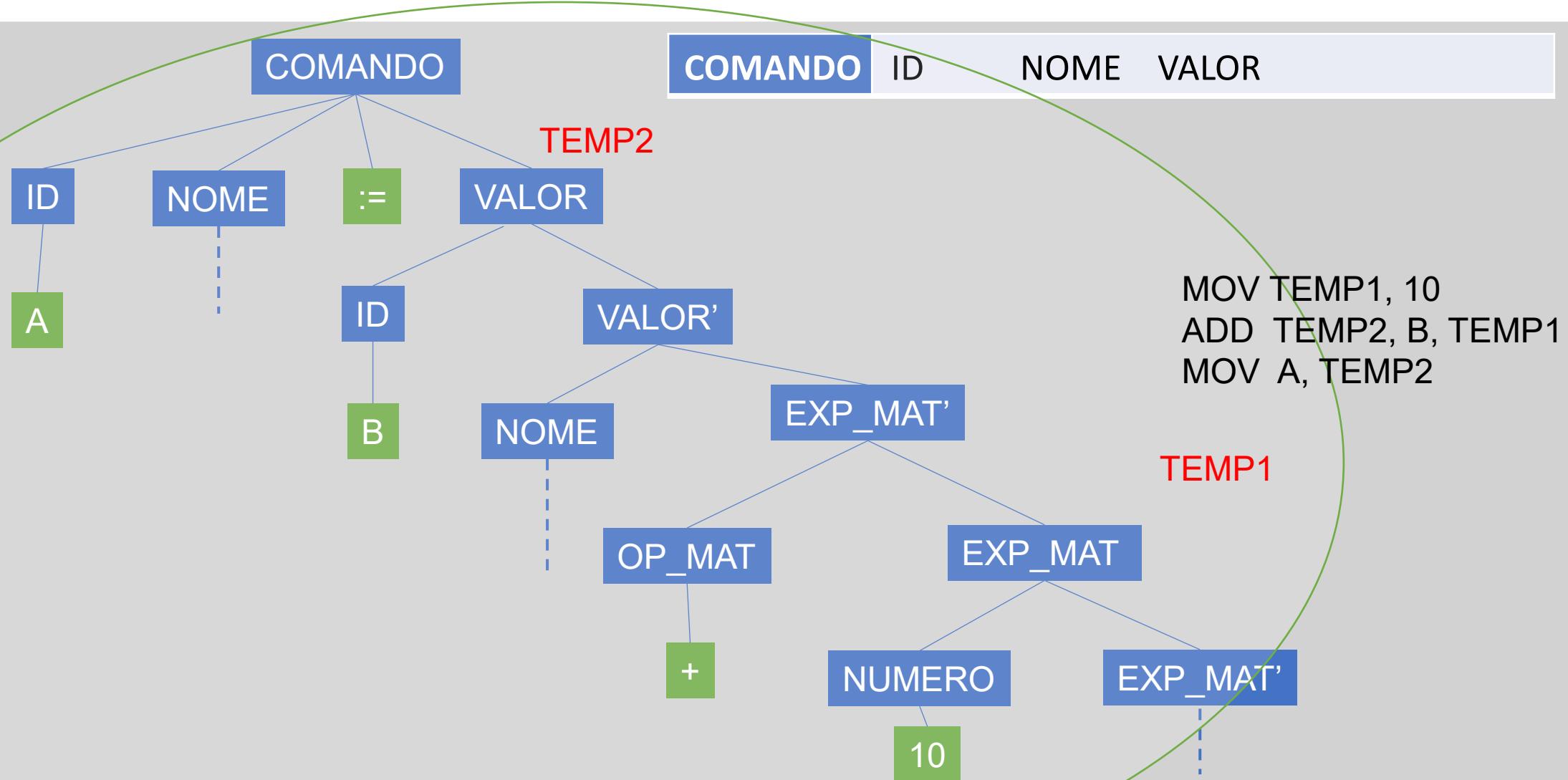
Exemplo: A := B + 10



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Instrução da regra VALOR

VALOR	ID	VALOR'
VALOR'	NOME	EXP_MAT'
EXP_MAT'	OP_MAT	EXP_MAT

OP_MAT TEMP, ID, TEMP_EXP_MAT

VALOR	ID	VALOR'
VALOR'	NOME	EXP_MAT'
EXP_MAT'	€	

MOV TEMP, ID

Instrução da regra VALOR

VALOR	NUMERO	EXP_MAT'
EXP_MAT'	OP_MAT	EXP_MAT

OP_MAT TEMP, NUMERO, TEMP_EXP_MAT

VALOR	NUMERO	EXP_MAT'
EXP_MAT'	€	

MOV TEMP, NUMERO

Instrução da regra COMANDO

COMANDO ID NOME := VALOR

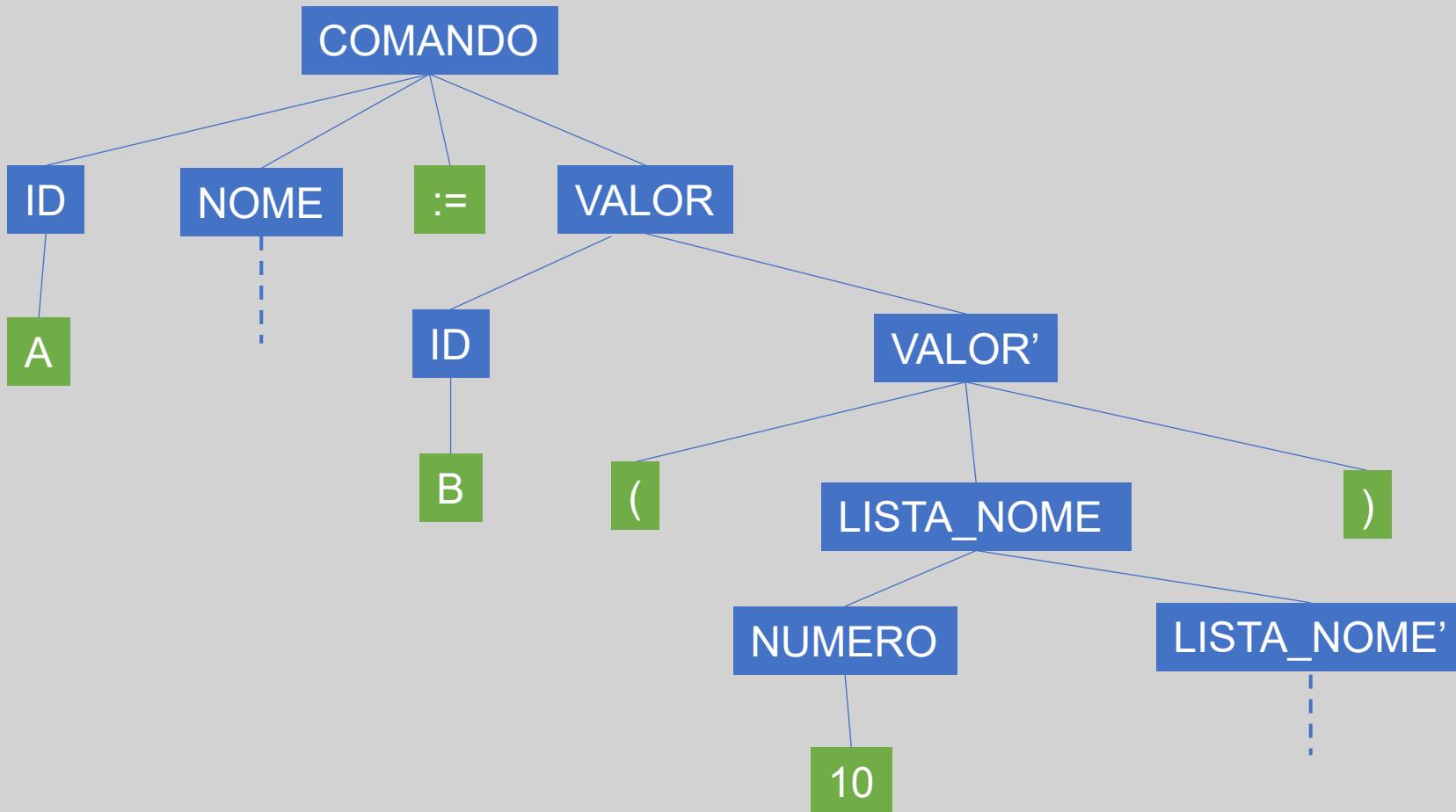
MOV ID, TEMP_VALOR

Regra LISTA_NOME

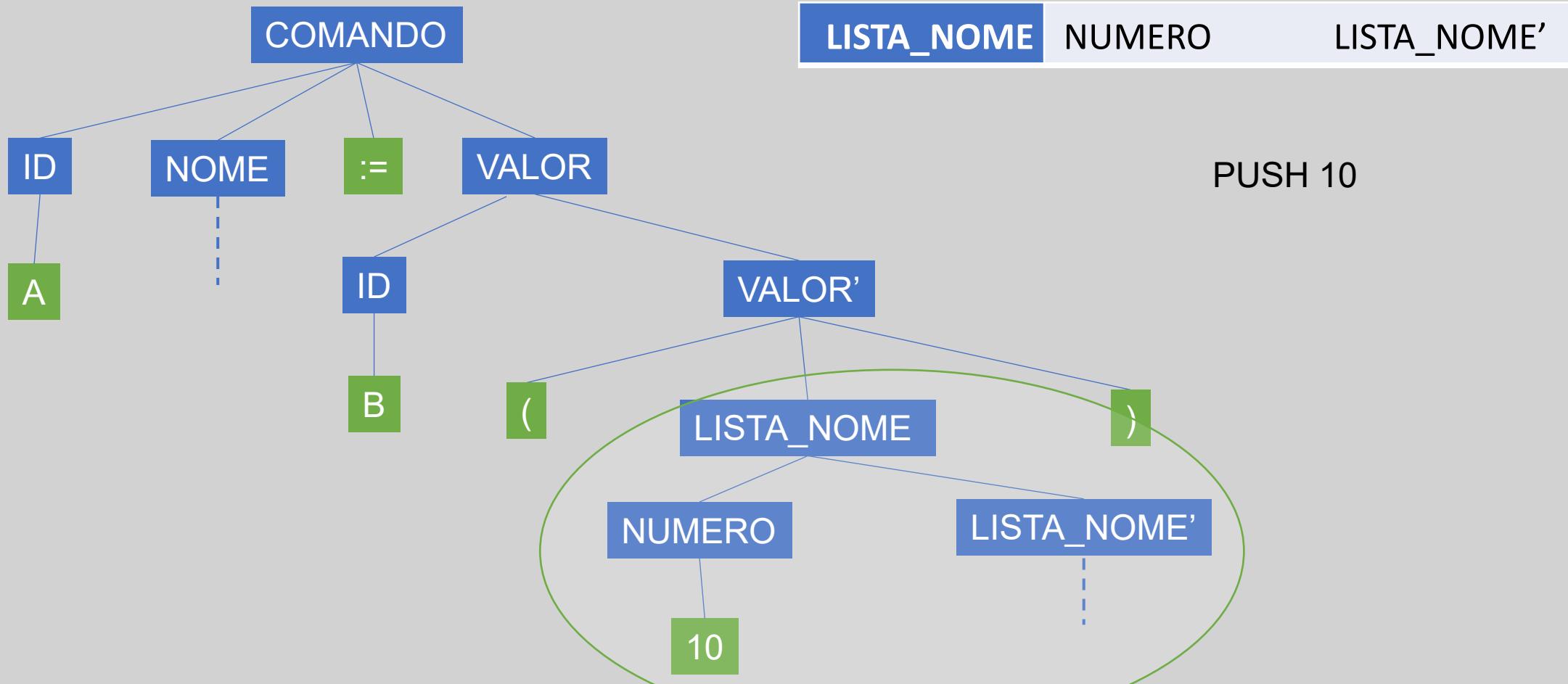
LISTA_NOME	ID	NOME	LISTA_NOME'
	NUMERO		LISTA_NOME'
	€		

LISTA_NOME'	,	LISTA_NOME
	€	

Exemplo: A := B(10)



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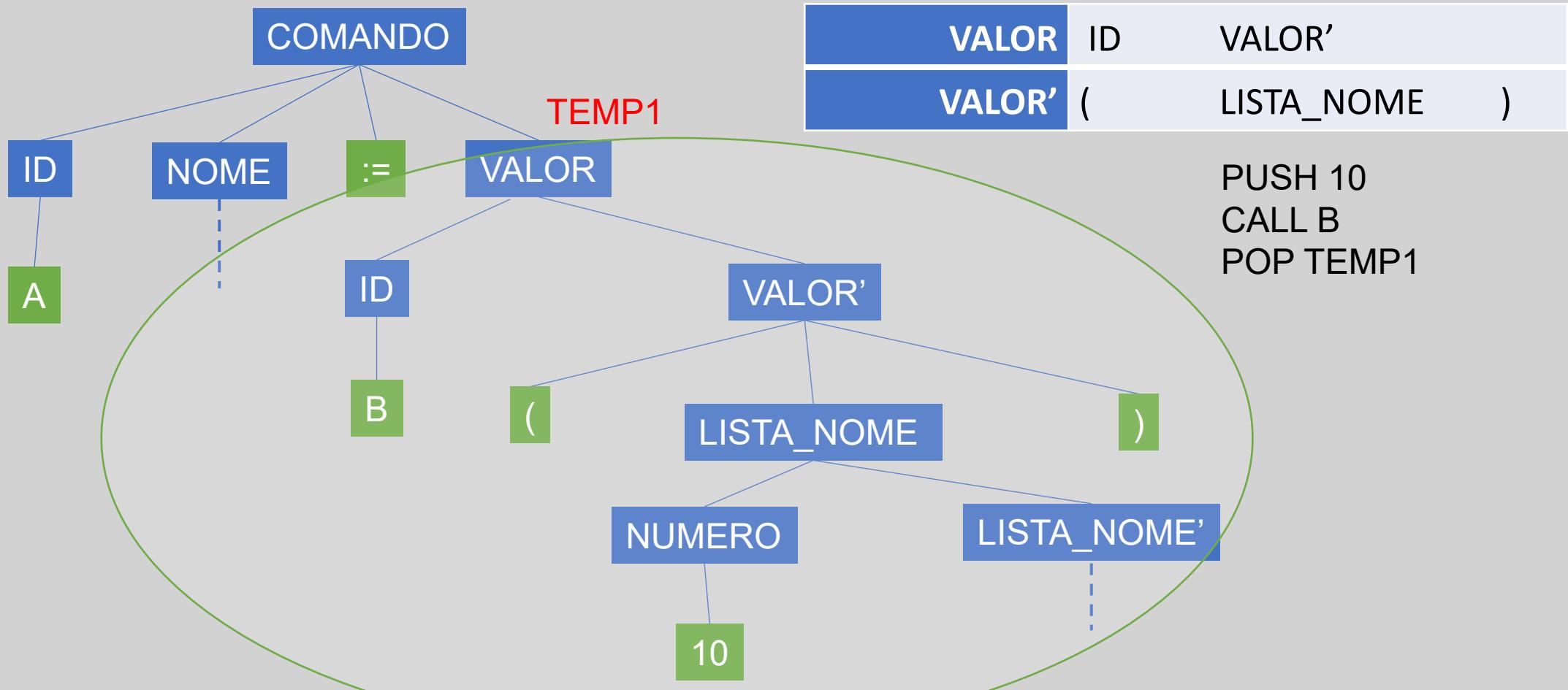
PUSH 10

LISTA_NOME

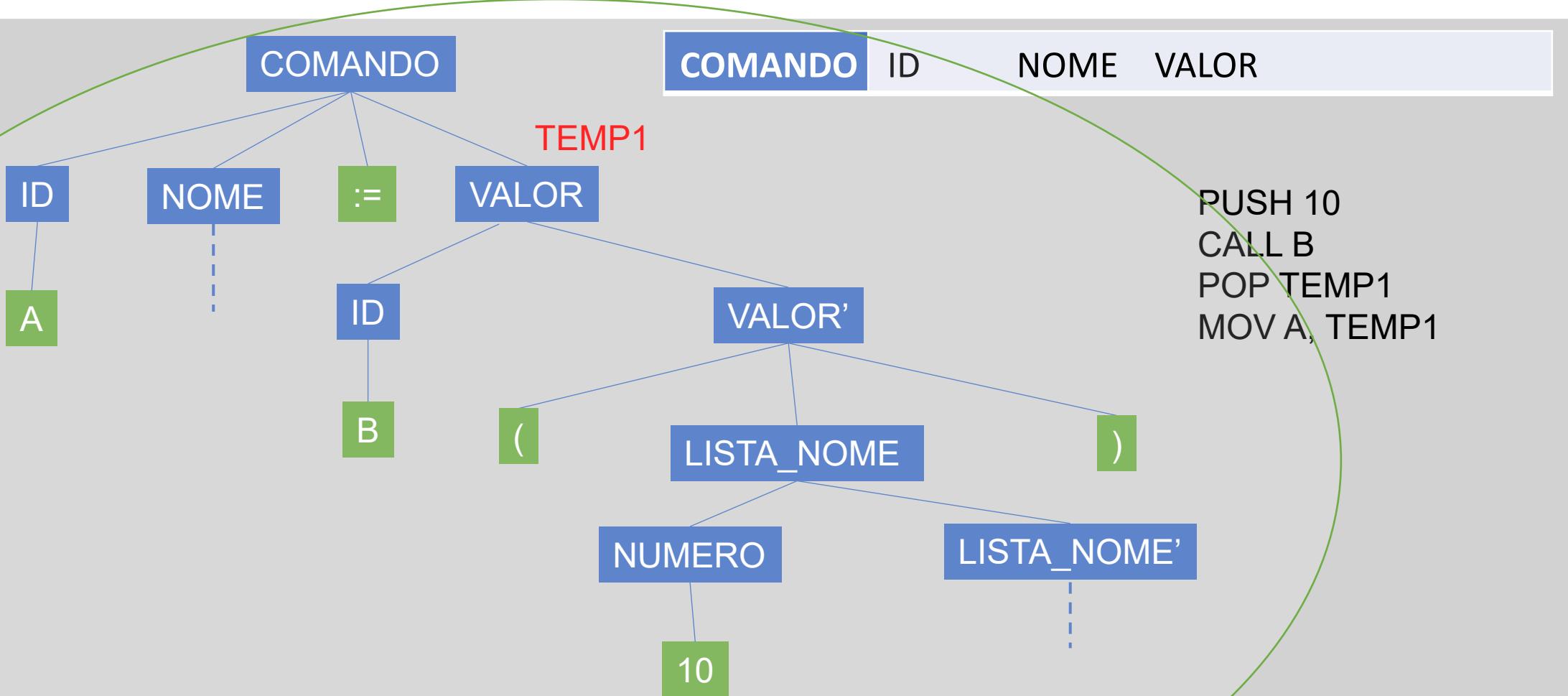
NUMERO

LISTA_NOME'

Exemplo: A := B(10)



Exemplo: A := B(10)



Instruções da regra LISTA_NOME

LISTA_NOME	ID	NOME	LISTA_NOME'
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PUSH ID

LISTA_NOME	NUMERO	LISTA_NOME'
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PUSH NUMERO

VALOR	ID	VALOR'
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VALOR'	(LISTA_NOME)
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CALL ID

POP TEMP

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