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Question

Work out Problem Set item #4 on page 200 of Sebasta (2012) at the end of Chapter 4)

Section 4.4.1 ENBF Description

<expr> -> <term> {(+ | -)<term>}  
<term> -> <factor> {(* | /)<factor>}  
<factor> -> id | int_constant | ( <expr> )

Parse Tree

Token Codes

INT_LIT 10
IDENT 11
ASSIGN_OP 20
ADD_OP 21
Trace of the Parse of $a \ast (b + c)$

Next token is: 11 Next lexeme is a
Enter <expr>
Enter <term>
Enter <factor>
Next token is: 23 Next lexeme is *
Exit <factor>
Next token is: 25 Next lexeme is (  
Enter <factor>
Next token is: 11 Next lexeme is b  
Enter <expr>
Enter <term>
Enter <factor>
Next token is: 21 Next lexeme is +  
Exit <factor>
Exit <term>
Next token is: 26 Next lexeme is )
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Exit <expr>

Next token is: 11 Next lexeme is c

Enter <expr>

Enter <term>

Enter <factor>

Next token is: -1 next lexeme is EOF

Exit <factor>

Exit <term>

Exit <expr>

Exit <factor>

Exit <term>