Wentworth Institute of Technology

COMP3350 Programming Languages

Lab 5 – Recursive descent parser 15 points

You are given the following grammar:

<Statement> -> {<Expression> ";"} "."

<Expression> -> <Term> {("+" | "-") <Term>}

<Term> -> <Factor> {("\*" | "/") <Factor>}

<Factor> -> number | "**(**" <Expression> "**)**"

Write a recursive descent parser to parse the following arithmetic expression. The parser will parse and evaluate the expression and display the result. The parser will prompt and read the expression from the console and

8 + 2 \* (5-2); **.** // Statement to parse followed by a

// period to indicate end of input