1) Create a PDA in the central pop form of the following CFG:

S ::= A B t

S ::= q

A ::= S B x

B ::= t

2) Create a CFG for a language that consists of zero or more statements, where each statement can either be an assignment statement, a break statement, or a C style switch statement. Be sure your grammar allows fall-through branches and that it does not allow unreachable code (code following a break). You can use the following without definition:

var a variable identifier

EXPR any expression (which also includes single variables)

value An integer constant value

You can assume that EXPR resolves to an integer expression where that is necessary.

You must explicitly give the syntax for an assignment. Don’t simply use EXPR as an assignment statement because not all expressions are assignments.