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CS4280

Homework1

1. The BNF grammar of the problem 1 is:

<for\_loop> ::= for ( <expression> ; <expression> ; <expression> ) {<statement>}

| for( <expression> ; <expression> ; <expression> ) {<block>}

2.

<a> --> (101)\*

<b> --> (00)\*

<c> --> (01)+

<d> --> <a><b><c>

3. The valid string above is as many as the size of the memory that hold.

4. There are 8 valid strings for the above that fit in 7 bits and there are

2 valid strings exactly 7 bits. They are: 01, 0101, 010101, 10101, 1010101, 1010001, 000001, 000101.