## Problem 2

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Each of I, H, X, Y, Z, CNOT and TOF is a quantum circuit expression, and therefore terminals.

S --> I  $\mid$  H  $\mid$  X  $\mid$  Y  $\mid$  Z  $\mid$  CNOT  $\mid$  TOF

S --> (S)

S --> S \* S

 $S \longrightarrow S \otimes S$