

Homework 1: Syntax descriptions

1. (a) $(-|\epsilon) [1-9] [0-9]^* (1|3|5|7|9) \mid (-|\epsilon) (1|3|5|7|9)$

A slightly relaxed expression that can have '-009' or such leading zeros can be

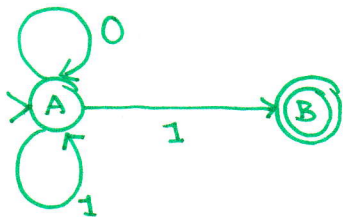
$(-|\epsilon) [0-9]^* (1|3|5|7|9)$

Both are correct answer.

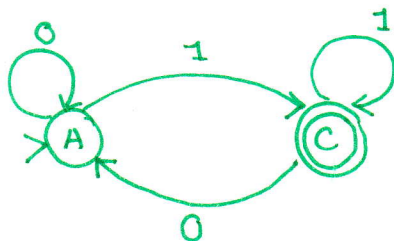
(b) $(a|b|c)^* b (a|b|c)^* b (a|b|c)^*$

(c) $([10] | 00^* [101])^* 0^*$

2. NFA for $(1|0)^* 1$ is



DFA is



	0	1
A	A	{A,B} = C
C	A	{A,B} = C