Assignment 3

<u>Problem 1</u>

Consider the pattern string $P = $ "abracadabra".

(a) Find the borders of each prefix of P.

Original String	Prefix Border			Suffix Border
abracadabra	abra		cad	abra
abracadabr	abr		acad	abr
abracadab			abracadab	
abracada	a		bracad	a
abracad			abracad	
abraca	a		brac	a
abrac			abrac	
abra	a		br	a
abr			abr	
ab			ab	
a			a	

(b) Construct the Knuth-Morris-Pratt mismatch table for P.

Example: The mismatch table for the string "abcabd" is

a	b	r	a	c	a	d	a	b	r	a
0	0	0	0	1	0	1	0	1	2	3

<u>Problem 2</u>

Construct a homing sequence for the DFA.

Start	a→		a→		End
0	N	A		N	0
1	A	A		N	0
2	A	N		A	2
3	N	A		A	2