

Math 3342 HW #8

#2, 4, 5, 6a

#2 $\{a^n c b^n\}$

read	pop	push
a	S	S1
c	S	ϵ
b	1	ϵ

#4 $\{x c x^R\}$

read	pop	push
a	S	Sa
b	S	Sb
c	S	ϵ
a	a	ϵ
b	b	ϵ

#5 $\{(ab)^n (ba)^n\}$

read	pop	push
a	S	TO
b	T	S1
ϵ	S	ϵ
b	O	ϵ
a	1	ϵ

or make a grammar
and convert:

$$S \rightarrow abSba \mid \epsilon$$

read	pop	push
ϵ	S	abSba
ϵ	S	ϵ
a	a	ϵ
b	b	ϵ

#6a $a^* b^*$

read	pop	push
a	S	S
ϵ	S	T
b	T	T
ϵ	T	ϵ