$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • •	В	a	a	b	b	С	С	В	
• • •	В	В	В	В	В	В	В	В	• • •

- 1: while there are unmarked a's do
- 2: Mark the first unmarked a with X
- 3: Mark the first unmarked b with X
- 4: Mark the first unmarked c with X
- 5: end while
- 6: Check if all symbols are marked

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	b	С	С	В	
	В	В	В	В	В	В	В	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(a,B)\rightarrow(a,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(b,B)\rightarrow(b,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,X)]R \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,X)\rightarrow(b,X)]R \qquad [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

Mark the first unmarked a with X.

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	b	С	С	В	
	В	Х	В	В	В	В	В	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(a,B)\rightarrow(a,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

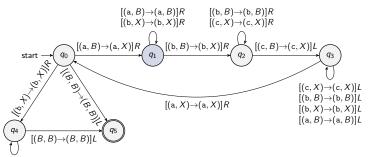
$$[(b,B)\rightarrow(b,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,X)]R \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,X)\rightarrow(b,X)]R \qquad [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

Mark the first unmarked \mathfrak{b} with X.

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	Ъ	С	С	В	• • •
	В	Χ	В	В	В	В	В	В	



$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • • •	В	a	a	b	b	С	С	В	
	В	Х	В	Х	В	В	В	В	

Mark the first unmarked c with X.

 $[(c, X) \rightarrow (c, X)]R$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	Ъ	С	С	В	• • •
	В	Χ	В	Х	В	В	В	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$

$$\mathbf{start} \rightarrow q_0 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \qquad q_3 \qquad q_4 \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad q_4 \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},B)]L \qquad q_5 \qquad q_6 \qquad$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	b	С	С	В	• • •
	В	Х	В	Х	В	Х	В	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$

$$\mathbf{start} \qquad q_0 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \qquad q_3 \qquad q_4 \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad q_4 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},B)]L \qquad q_5 \qquad q_6 \qquad q_8 \qquad q_9 \qquad q_8 \qquad$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	Ъ	С	С	В	• • •
	В	Χ	В	Χ	В	Х	В	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$\text{start} \qquad q_0 \qquad [(a,B)\rightarrow(a,X)]R \qquad q_1 \qquad [(c,B)\rightarrow(b,X)]R \qquad q_2 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3 \qquad q_4 \qquad [(b,B)\rightarrow(a,X)]R \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad q_4 \qquad [(a,B)\rightarrow(a,B)]L \qquad q_5 \qquad q_6 \qquad q_6$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	b	С	С	В	
	В	Х	В	Х	В	Х	В	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \quad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$

$$\text{start} \qquad q_0 \quad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \quad q_1 \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \quad q_2 \quad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \\ [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad q_3 \quad q_4 \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad q_5 \quad q_5 \quad q_5 \quad q_6 \quad q_7 \quad q_8 \quad q_8$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	Ъ	С	С	В	
•••	В	Х	В	Х	В	Х	В	В	• • •

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_5 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_6 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_8 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_8 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_9 \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

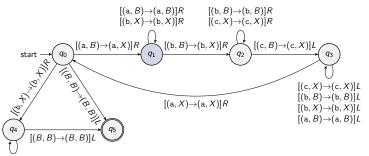
•••	В	a	a	b	b	С	С	В	
	В	Χ	В	Х	В	X	В	В	

Repeat until all a's are marked.

 $[(c, X) \rightarrow (c, X)]R$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	b	С	С	В	• • •
	В	Χ	Х	Χ	В	Х	В	В	



$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	Ъ	С	С	В	
	В	Χ	Х	Х	В	Х	В	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$

$$\mathbf{start} \rightarrow q_0 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \qquad q_3 \qquad q_2 \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \qquad q_3 \qquad q_4 \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad q_4 \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad q_5 \qquad q_6 \qquad$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	Ъ	С	С	В	• • •
	В	Χ	Х	Х	Х	Χ	В	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$

$$\mathbf{start} \rightarrow q_0 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \qquad q_3 \qquad q_4 \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad q_4 \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},B)]L \qquad q_5 \qquad q_6 \qquad$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	Ъ	С	С	В	
•••	В	Х	Х	Х	Х	Х	В	В	• • •

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • •	В	a	a	Ъ	b	С	С	В	• • •
	В	Х	Х	Х	Х	Χ	X	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,X)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,X)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	b	С	С	В	• • •
• • •	В	Χ	Х	Х	Χ	X	X	В	• • •

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,X)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,X)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • •	В	a	a	Ъ	b	С	С	В	• • •
	В	Χ	Х	Χ	Х	Х	X	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \quad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$

$$\text{start} \qquad q_0 \quad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \quad q_1 \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \quad q_2 \quad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \\ [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad q_3 \quad q_4 \quad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \quad q_5 \quad q_5 \quad q_5 \quad q_6 \quad q_7 \quad q_8 \quad q_8$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	Ъ	С	С	В	• • •
	В	Χ	Χ	Х	Х	Х	X	В	

$$[(\mathbf{a},B)\rightarrow(\mathbf{a},B)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]R \\ [(\mathbf{b},X)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]R$$
 start
$$q_0 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},X)]R \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},X)]R \qquad [(\mathbf{c},B)\rightarrow(\mathbf{c},X)]L \qquad q_3 \qquad q_4 \qquad [(\mathbf{c},X)\rightarrow(\mathbf{c},X)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad [(\mathbf{b},B)\rightarrow(\mathbf{b},B)]L \qquad q_4 \qquad [(\mathbf{a},B)\rightarrow(\mathbf{a},B)]L \qquad q_5 \qquad q_5 \qquad q_6 \qquad q_6$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • • •	В	a	a	b	b	С	С	В	
	В	Х	Х	Χ	Х	Х	X	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(c,B)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c$$

Now, no more unmarked a's. Check if all symbols are marked.

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	Ъ	b	С	С	В	• • •
	В	Χ	Х	Х	Χ	Х	X	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,X)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c$$

$$[(b, X) \rightarrow (b, X)]R$$
$$[(c, X) \rightarrow (c, X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	Ъ	С	С	В	• • •
	В	Χ	Х	Х	Х	Χ	X	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_5 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_6 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_8 \qquad [(c,B)\rightarrow(c,X)]L \qquad q_9 \qquad [(c,B)\rightarrow(c,X)]L \qquad [(c,B)\rightarrow(c,X$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • •	В	a	a	b	b	С	С	В	• • •
• • • •	В	Χ	Χ	Χ	Х	Χ	Χ	В	• • •

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(c,X)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(c,X)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_4 \qquad [(c,B)\rightarrow(c,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_5 \qquad q_6 \qquad [(c,B)\rightarrow(c,X)]L \qquad$$

$$[(b, X) \rightarrow (b, X)]R$$
$$[(c, X) \rightarrow (c, X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

•••	В	a	a	b	Ъ	С	С	В	• • •
	В	Х	Х	Х	Х	Х	Х	В	

$$[(a,B)\rightarrow(a,B)]R \qquad [(b,B)\rightarrow(b,B)]R \\ [(b,X)\rightarrow(b,X)]R \qquad [(c,X)\rightarrow(c,X)]R$$

$$[(a,B)\rightarrow(a,X)]R \qquad [(c,X)\rightarrow(c,X)]L \qquad q_3$$

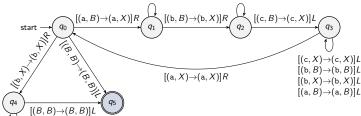
$$[(a,B)\rightarrow(a,X)]R \qquad [(c,B)\rightarrow(c,X)]L \qquad q_3$$

$$[(a,B)\rightarrow(a,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(b,B)\rightarrow(b,B)]L \qquad [(a,B)\rightarrow(a,B)]L$$

$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

$$L(M) = \{a^n b^n c^n \mid n \ge 0\}$$

• • • •	В	a	a	b	b	С	С	В	
	В	Χ	Х	Х	X	X	Χ	В	



$$[(b,X)\rightarrow(b,X)]R$$
$$[(c,X)\rightarrow(c,X)]R$$

Accept!