

Construct a **non-deterministic TM** that accepts the language:

$$L(M) = \{ww^R \mid w \in \{a, b\}^*\}$$

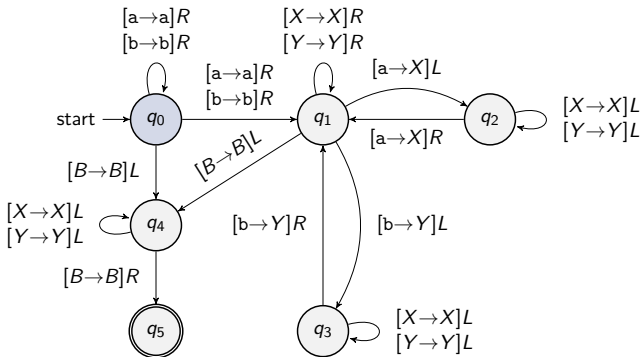
...	<i>B</i>	a	b	b	a	<i>B</i>	...
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- 1: Find the middle in the input
- 2: Check if first and second half are reverse of each other

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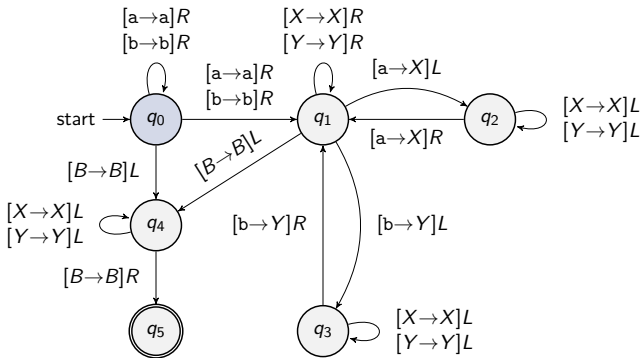


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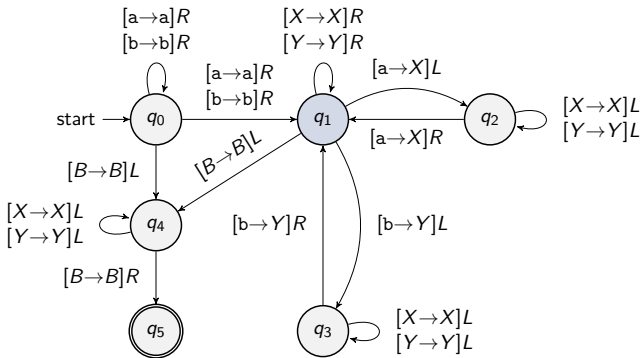
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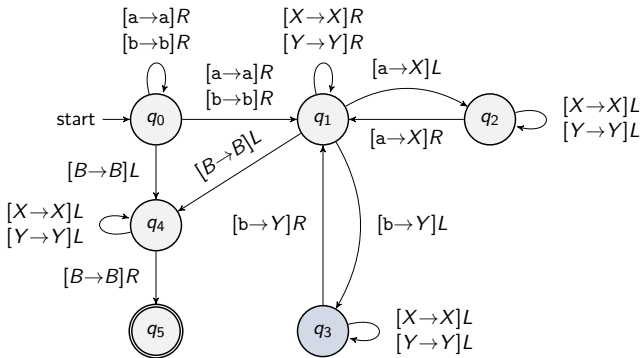


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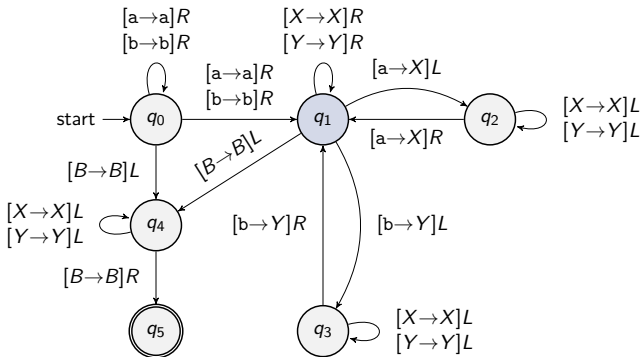
...	B	a	b	Y	a	B	...
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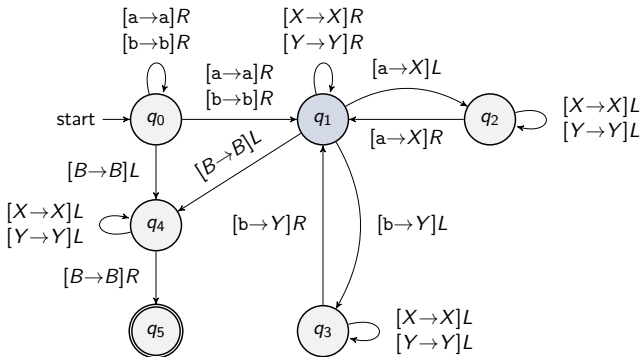
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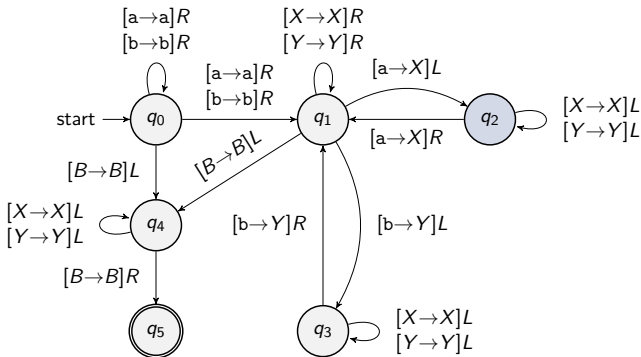
...	B	a	Y	Y	a	B	...
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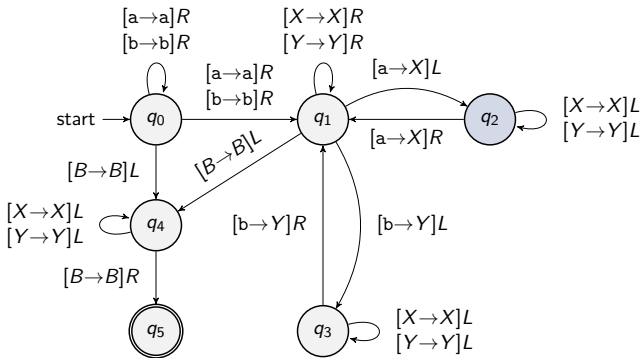
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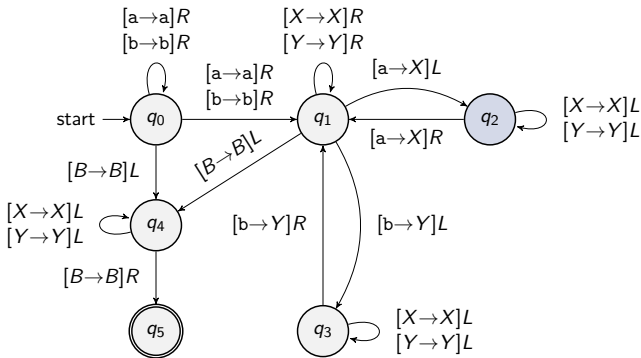
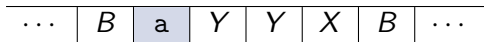
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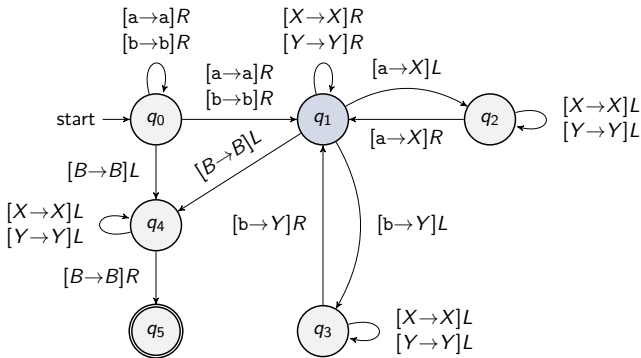
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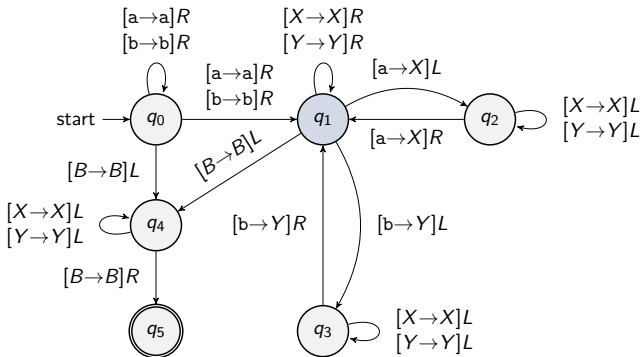
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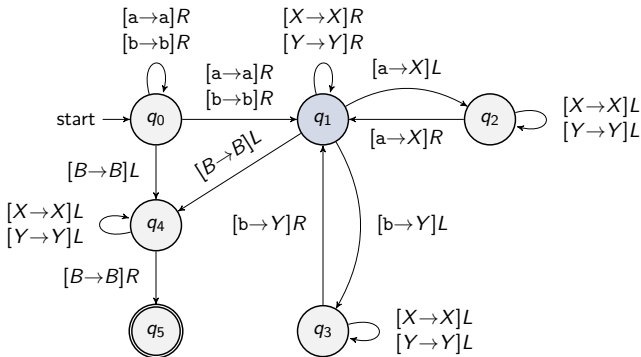
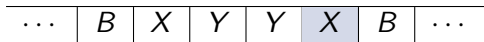
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...	B	X	Y	Y	X	B	...
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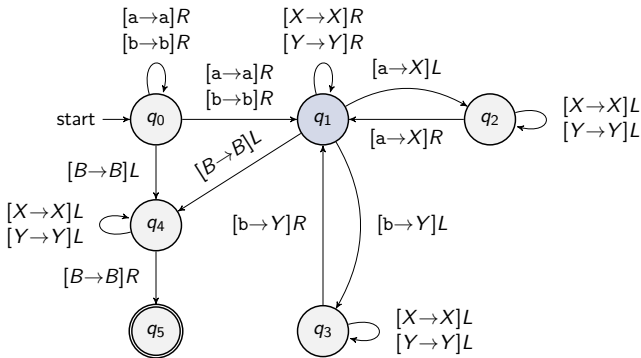
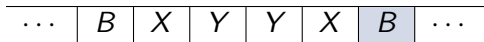
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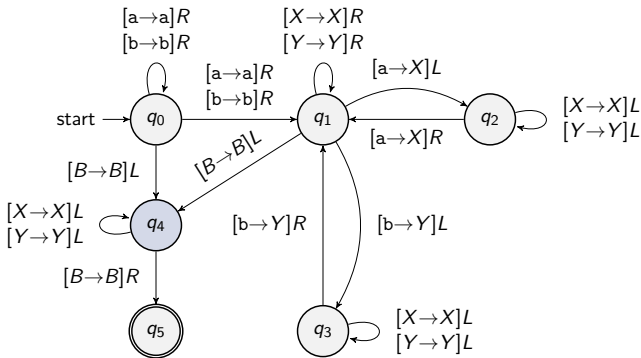
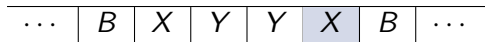
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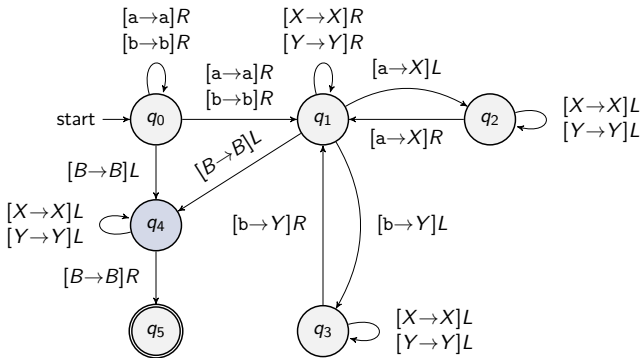
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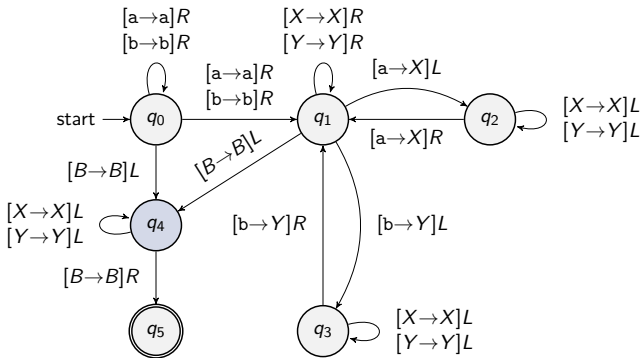
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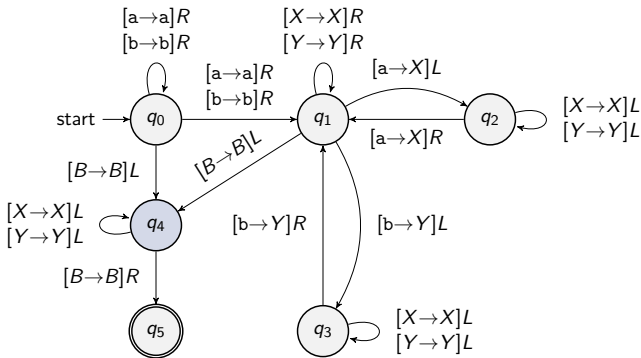
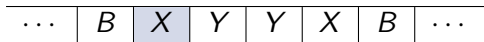
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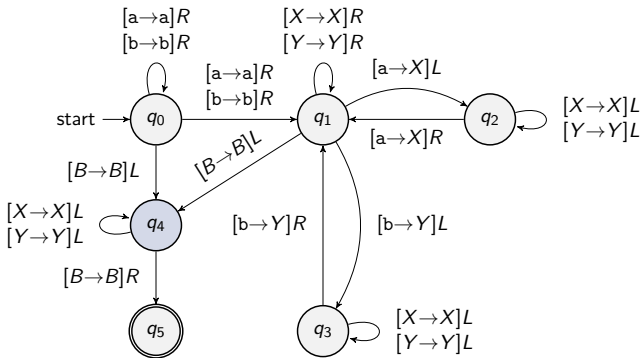
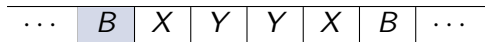
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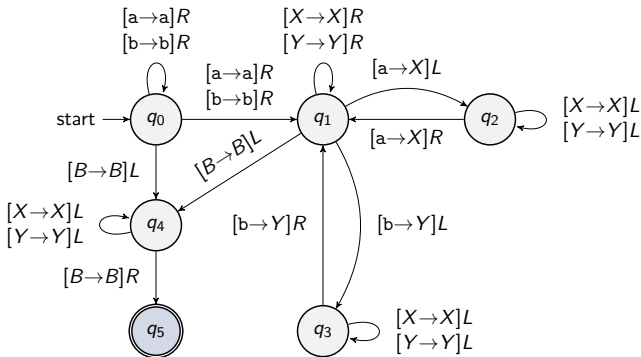
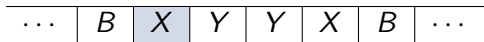
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Accept!