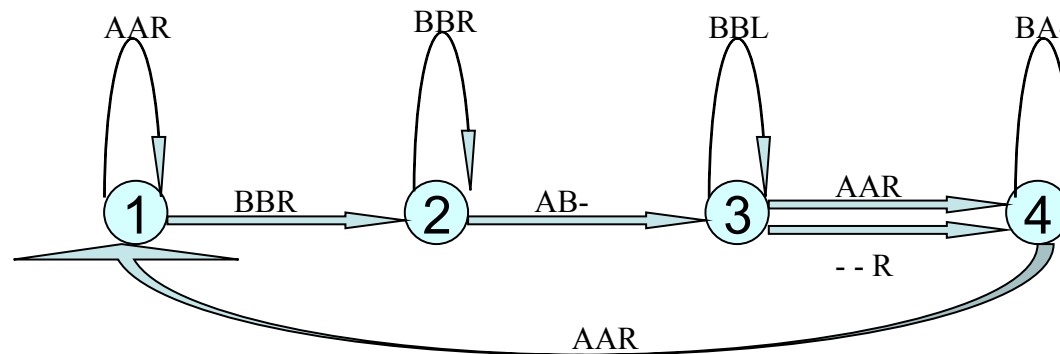


# Turing Machines

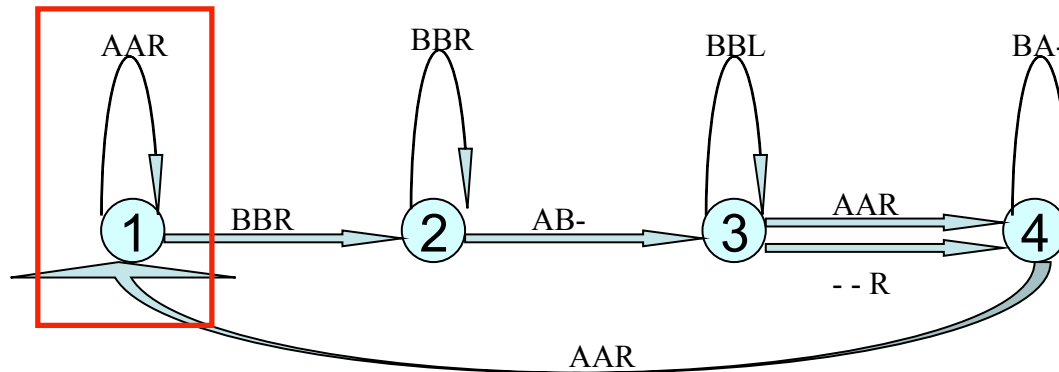
# Turing Machines



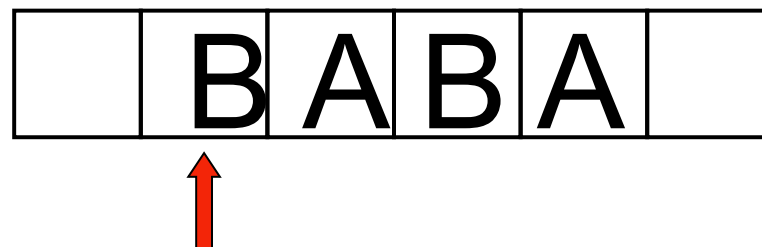
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4

This machine will sort any random string of A's and B's so that all of the A's are listed first, then all the B's. The machine begins by reading the symbol on the far left of the tape.

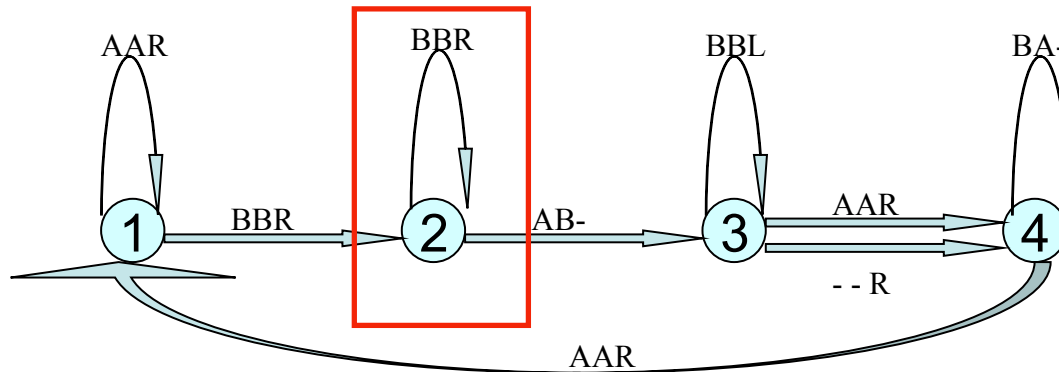
# Turing Machines



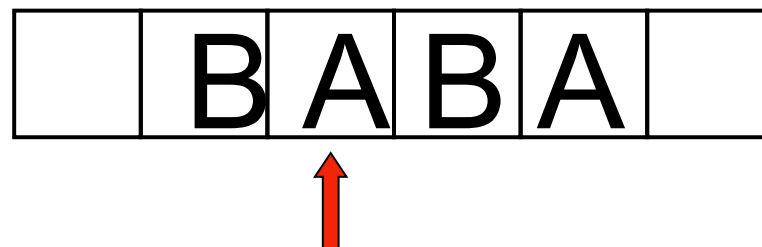
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



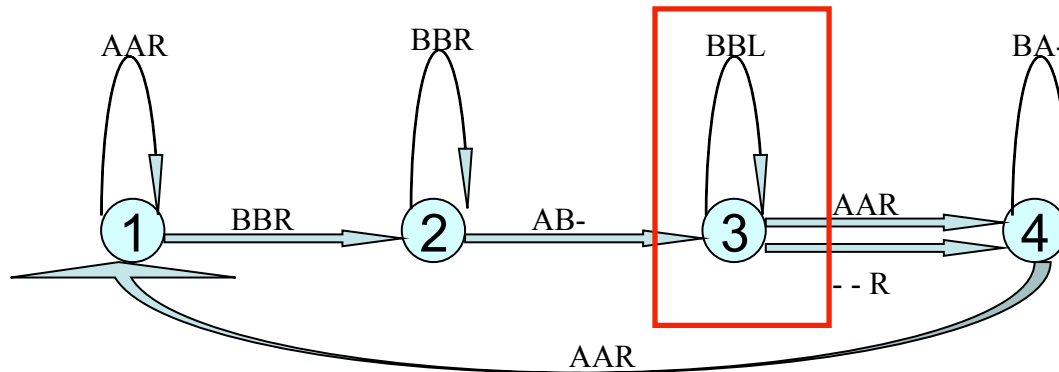
# Turing Machines



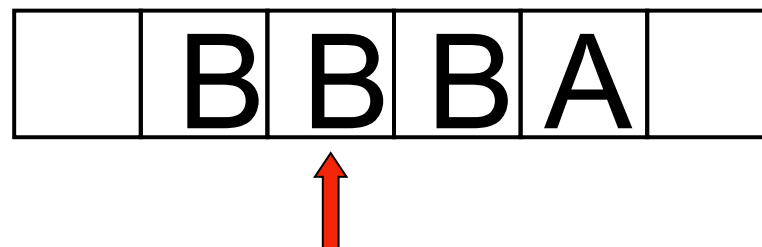
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



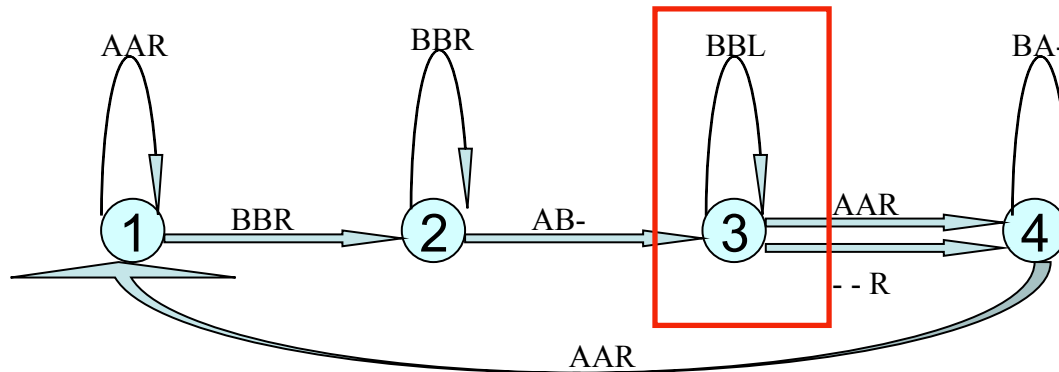
# Turing Machines



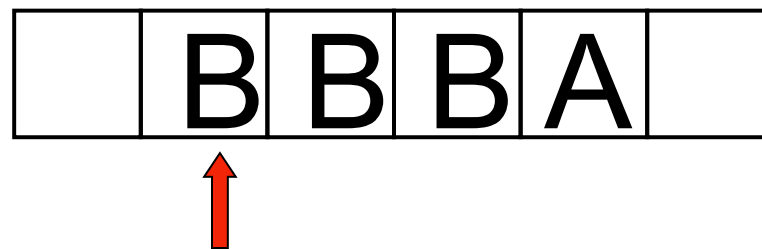
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



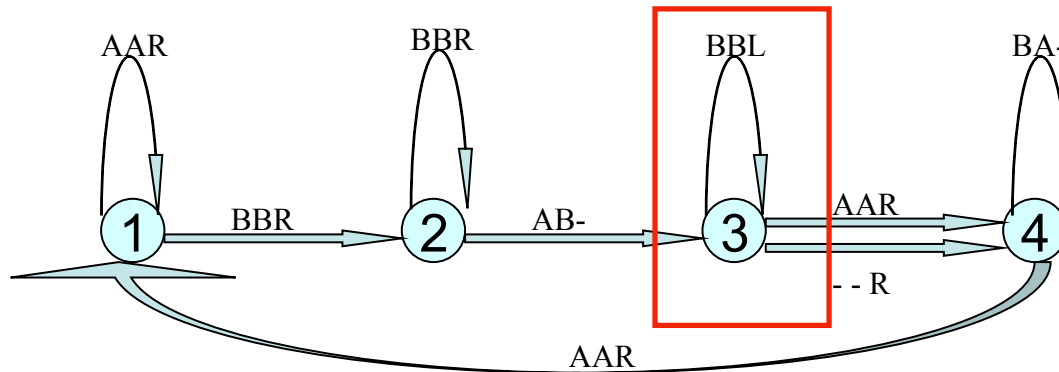
# Turing Machines



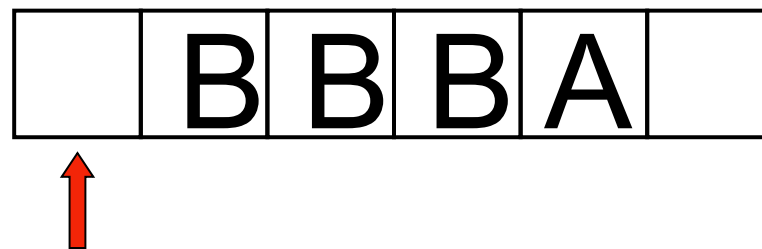
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



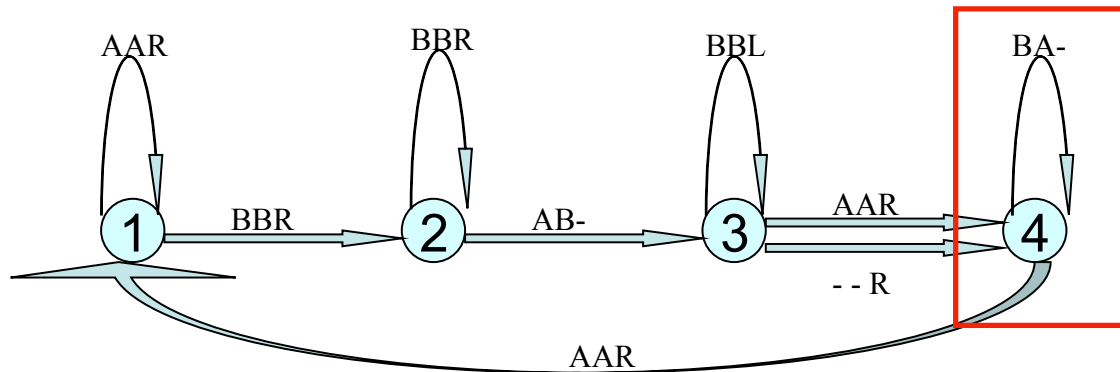
# Turing Machines



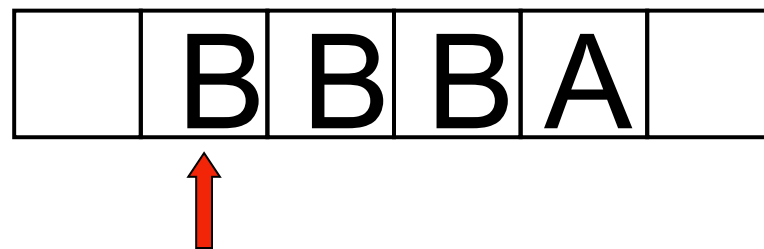
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



# Turing Machines

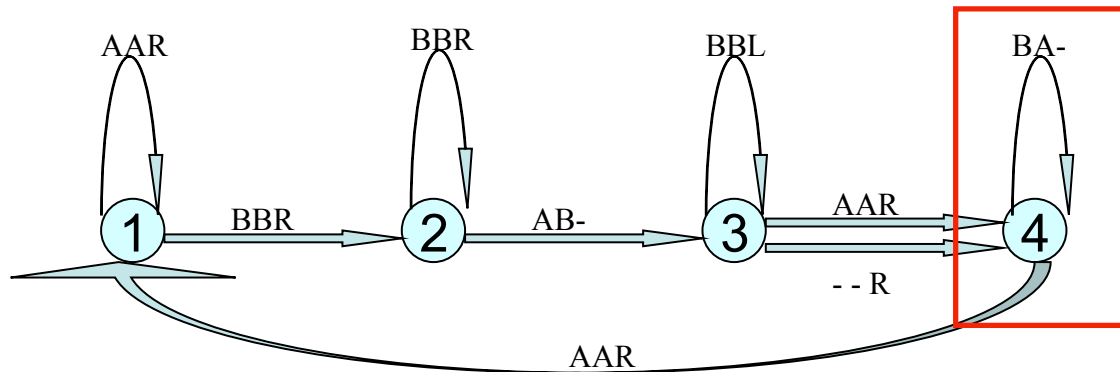


If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4

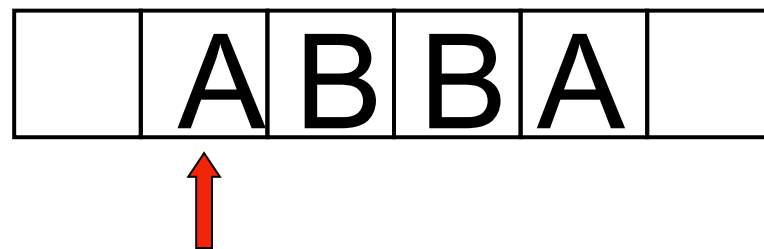




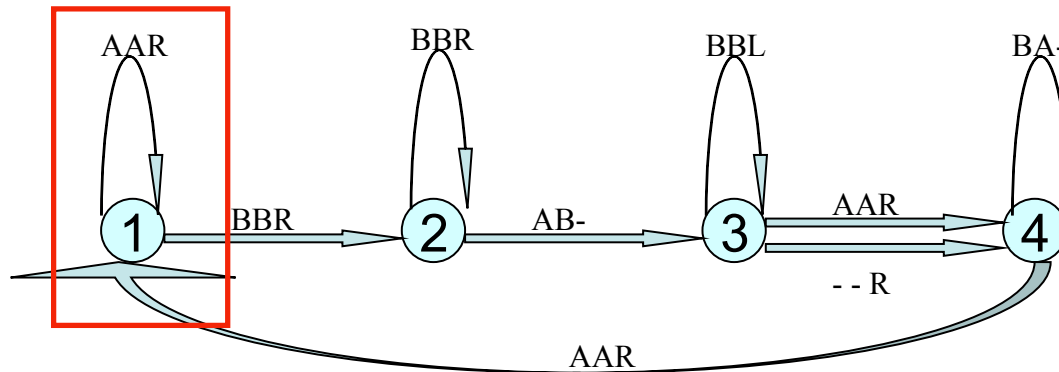
# Turing Machines



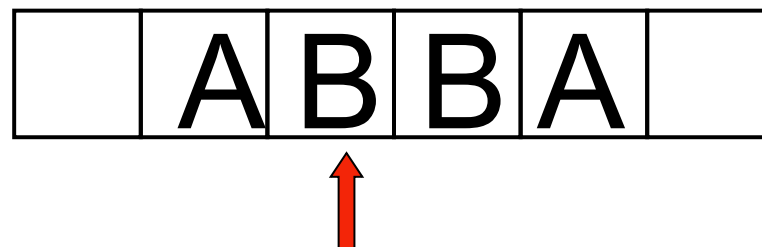
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



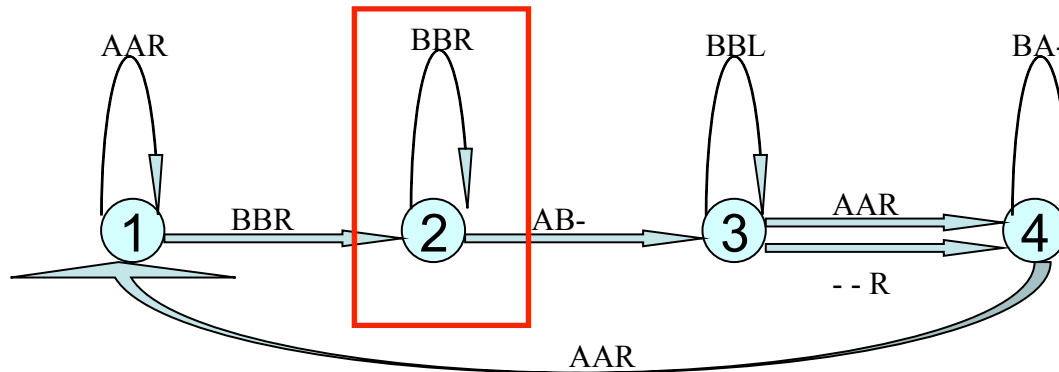
# Turing Machines



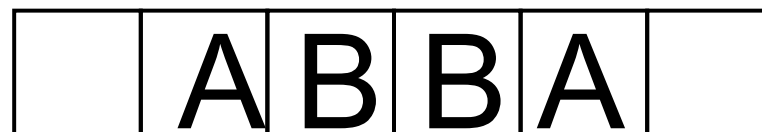
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



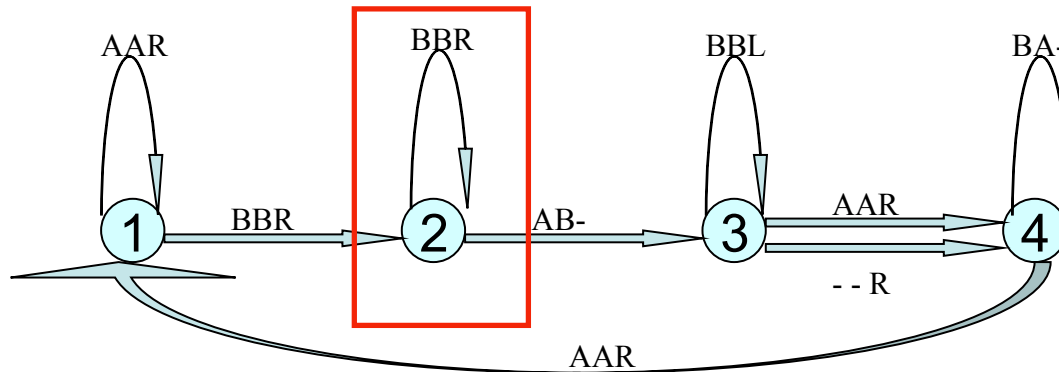
# Turing Machines



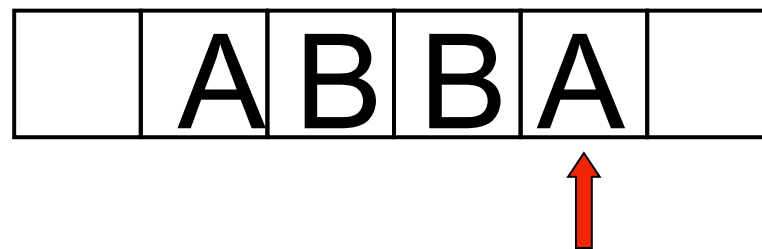
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



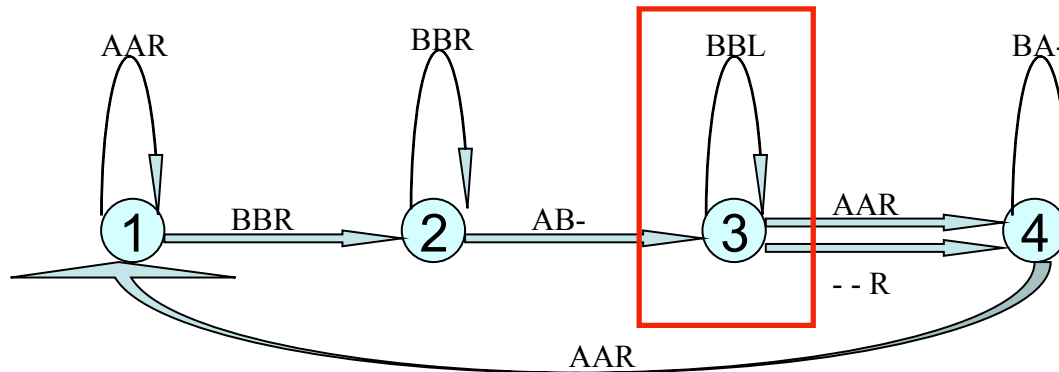
# Turing Machines



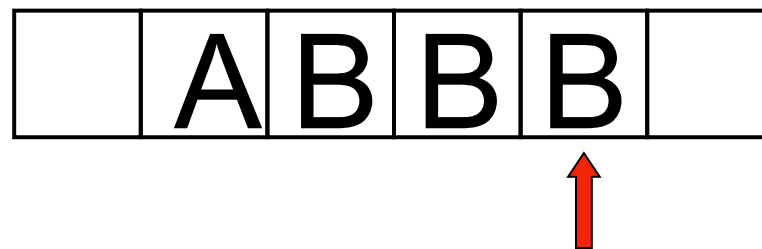
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



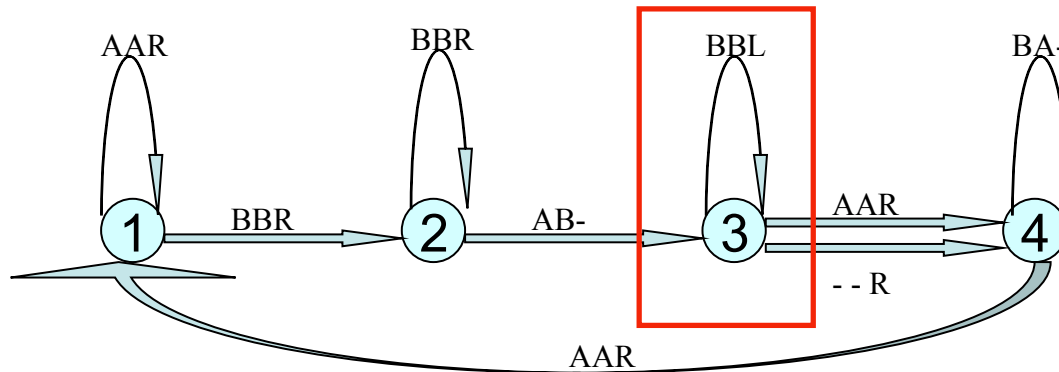
# Turing Machines



If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



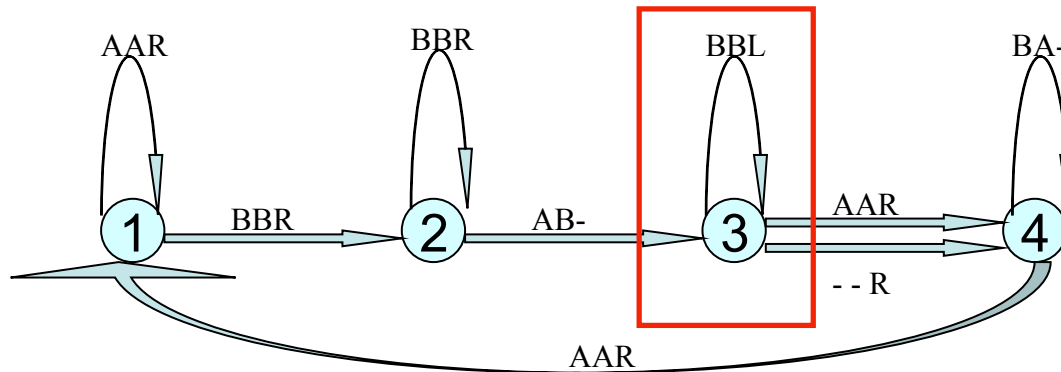
# Turing Machines



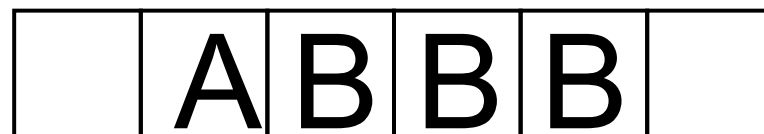
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



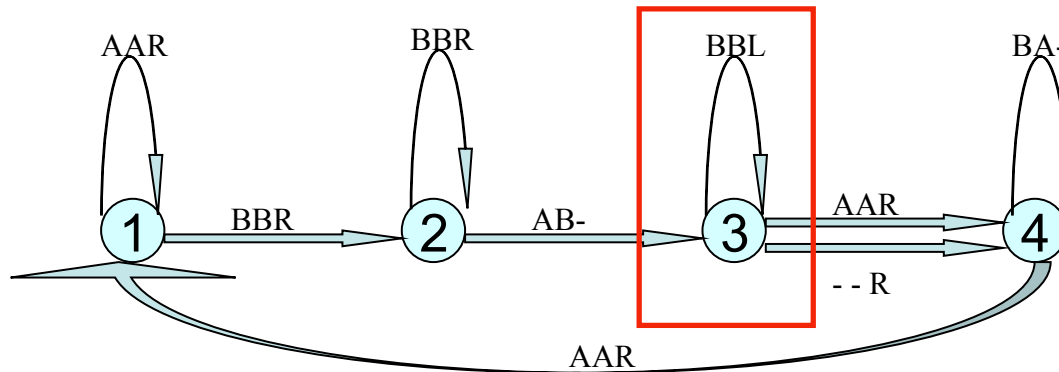
# Turing Machines



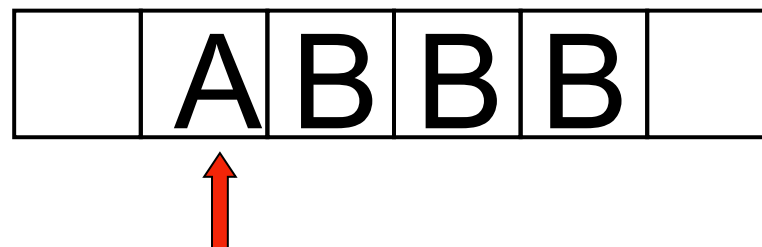
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



# Turing Machines

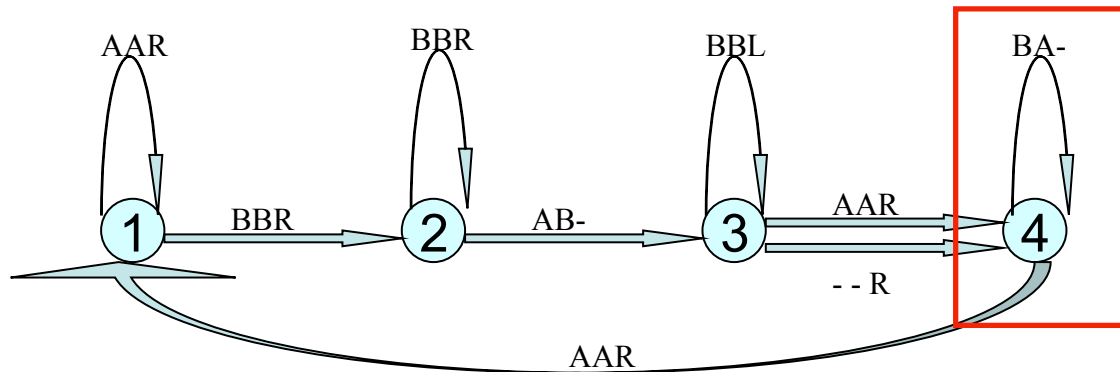


If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4

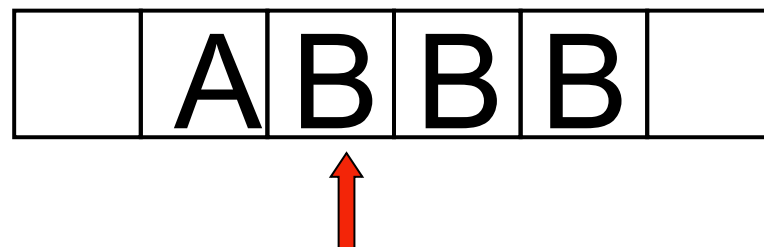




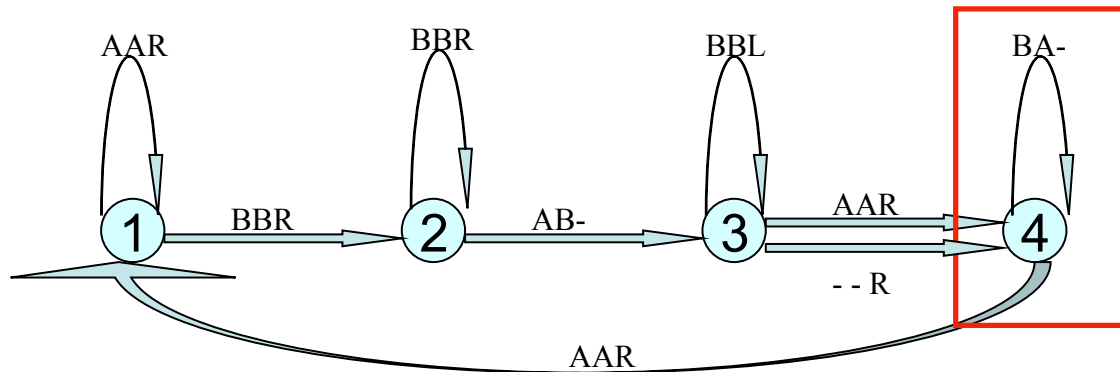
# Turing Machines



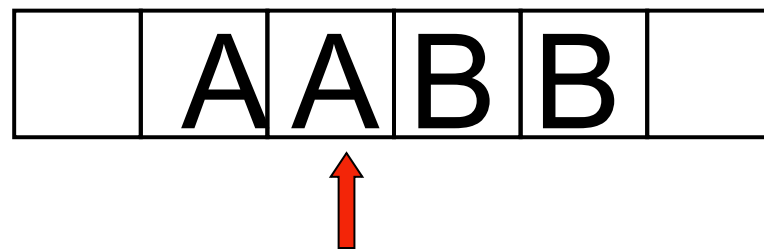
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



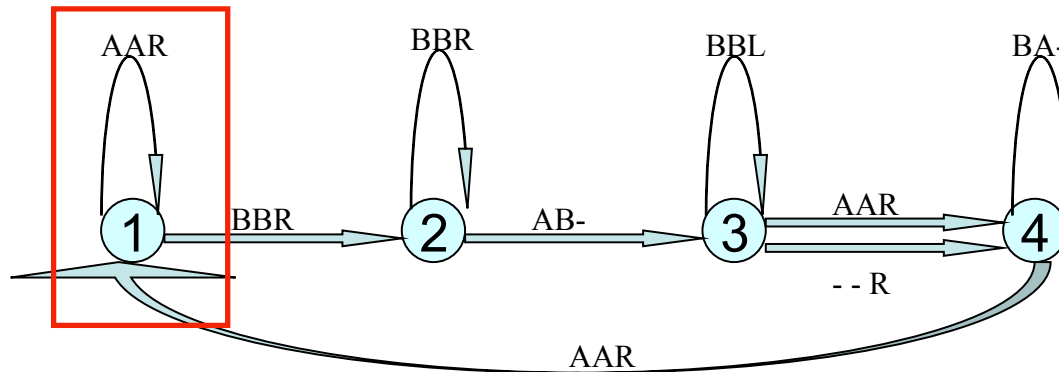
# Turing Machines



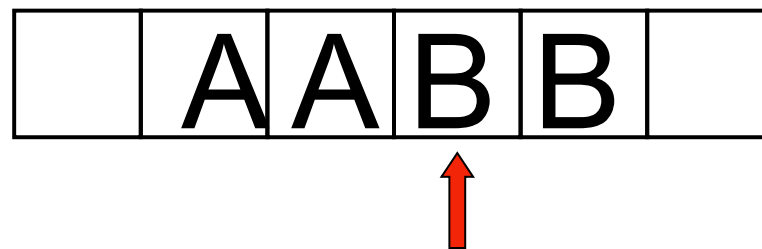
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
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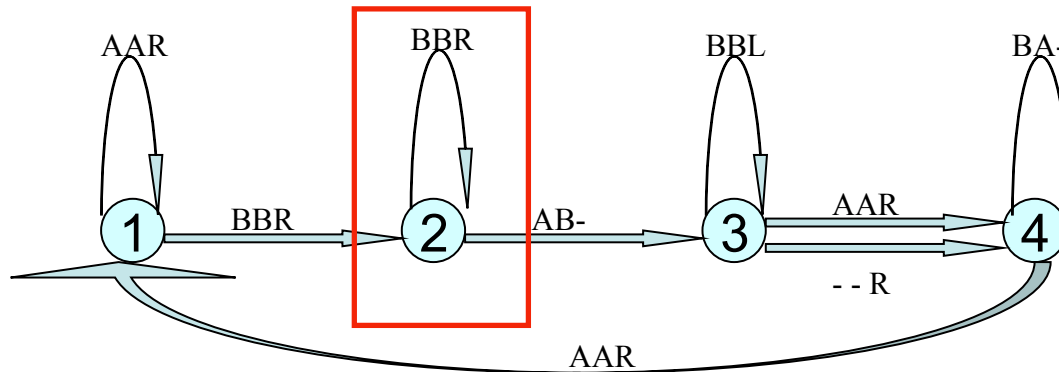
# Turing Machines



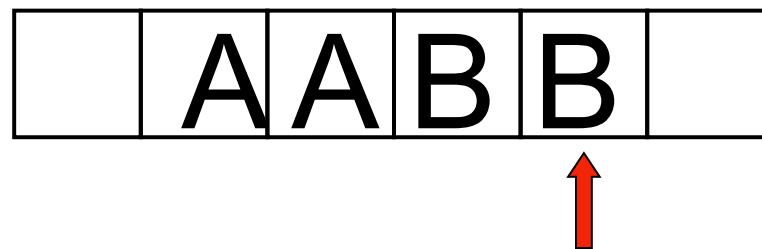
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



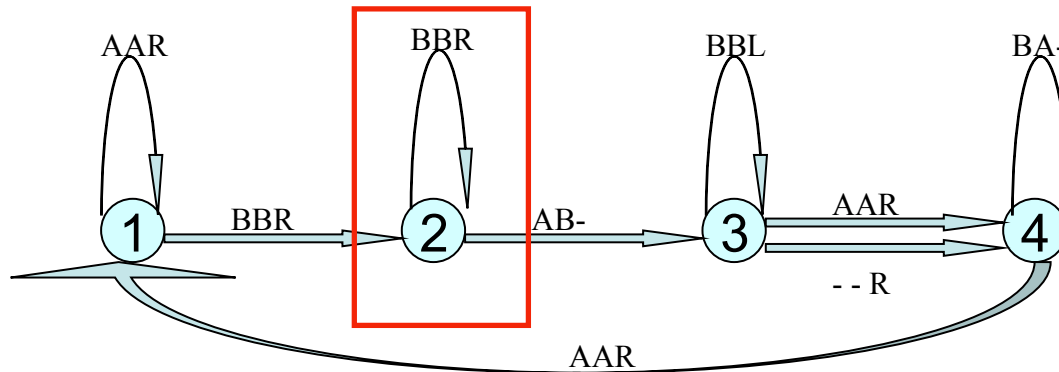
# Turing Machines



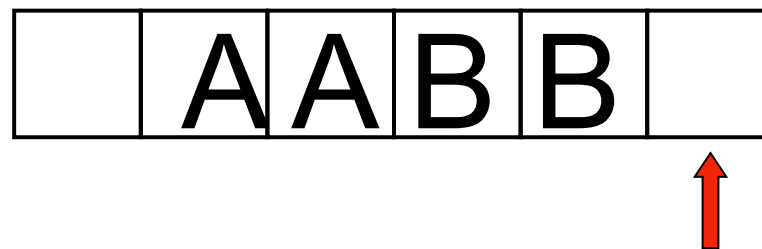
If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



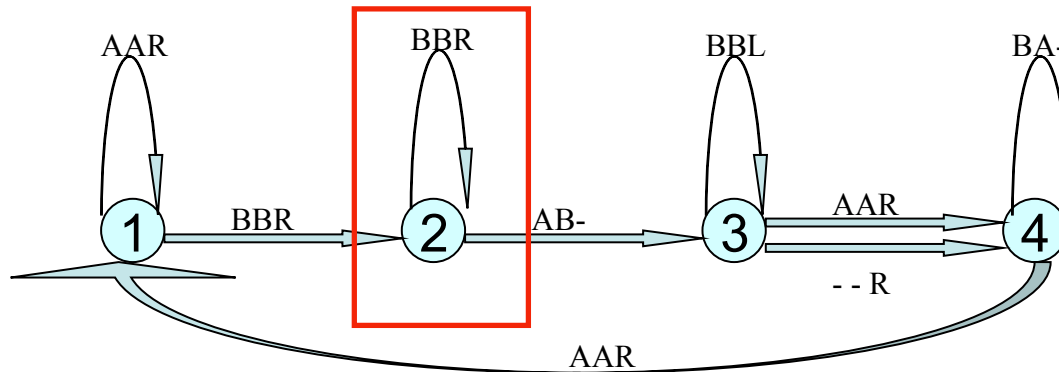
# Turing Machines



If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



# Turing Machines



If it's in state ...	1	2	3	4
And it reads ...	A - B	A - B	A - B	A - B
Then it writes ...	A - B	B - B	A - B	A - A
And moves ...	R - R	- - R	R R L	R - -
And enters state ...	1 1 2	3 2 2	4 4 3	1 4 4



The machine stops here.

