

Regular Expression Matching

* → 0 or more

S: "c#a*b" p: "a a b"

		0	1	2	3	4	5
		-	c	*	a	*	b
0	-	T	F	T	F	T	F
1	a	F	F ^①	F F ^③	T ^②	F T ^④ = T	F
2	a	F	F	F	F	F T	F
3	b	F	F	F	F	F	T

① char(a) != char(c)
∴ F.

② char(a) = char(a)
⇒ -c#a = -a?
match

∴ -c# = -?
check diagonal left.

③ -c# = -a?
0 / \ 1

- = -a? -c#c = -a?
F = (1, 0) F ⇒ chars don't match.

- 1st column is F because empty pattern will not match p unless p is also empty

- 1st row F for a character. For *, check 2 cols back to see if T.
2 cols back ⇒ 0 occurrence of character before * → see if that can give empty string.

④ -c#a* = -a?
0 / \ 1

-c# = -a? -c#a#a = -a?
F = (1, 2) char match

⇒ -c#a* = -?
T = (0, 4)