

第一/二次作业



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1.2.1

(2.1) 用文字简要描述以下C变量p的类型信息。

```
int (*( *(*p(int x))())[20])(int *y);
```

- 函数指针与指针函数
- p是一个参数为int x的函数，该函数返回一个指针，指向一个无参函数，该函数（无参函数）又返回一个指针，该指针指向一个20个元素的数组，数组的元素类型是一个指针，指向一个参数为int *y并且返回值为int类型的函数。
- 步骤：
 - 找到需要描述的变量
 - 根据优先级进行描述

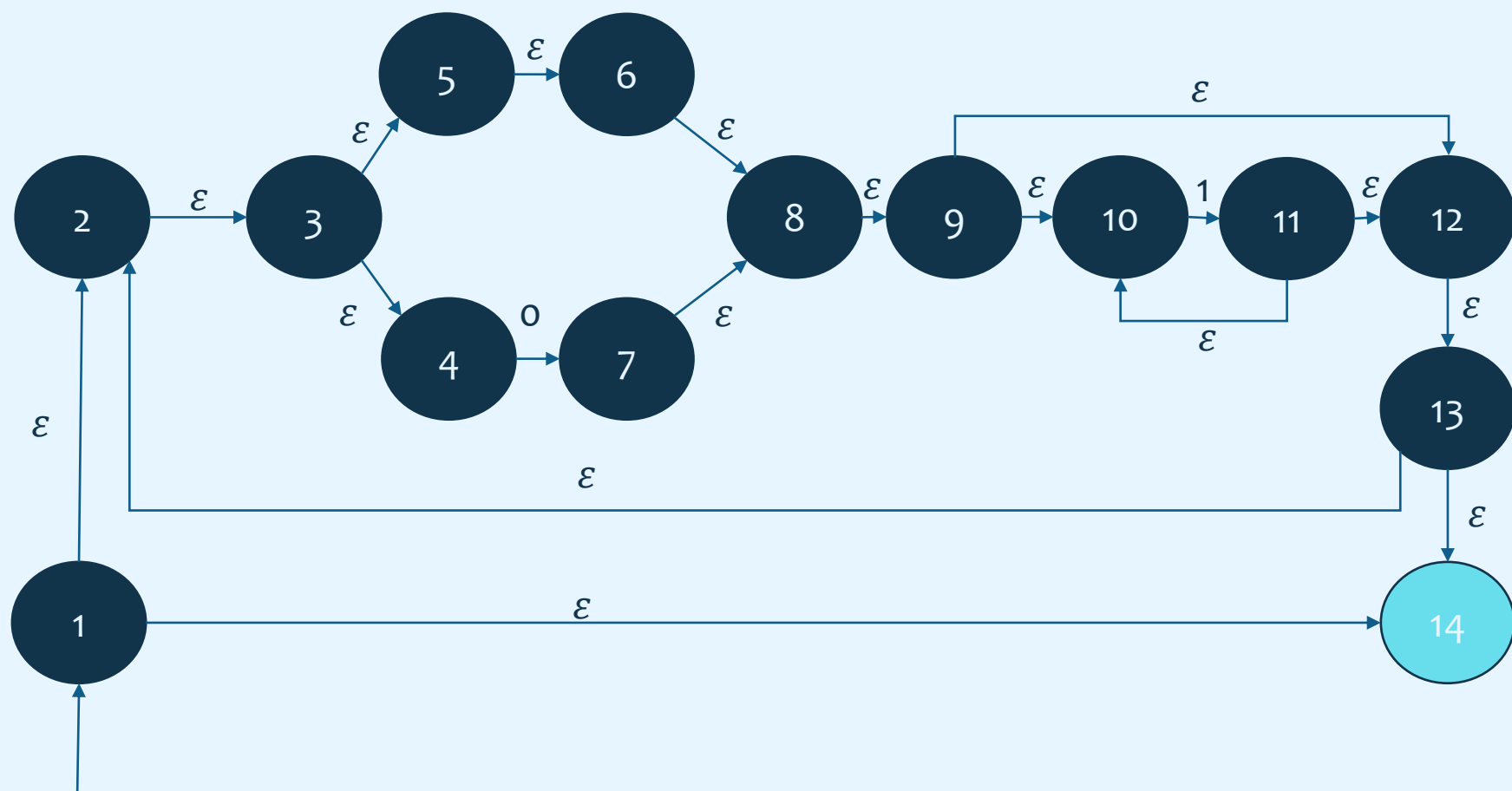
2.1.1

$((\varepsilon|0)1^*)^*$:任意01串

$0^*10^*10^*10^*$:有且仅有三个1的01串

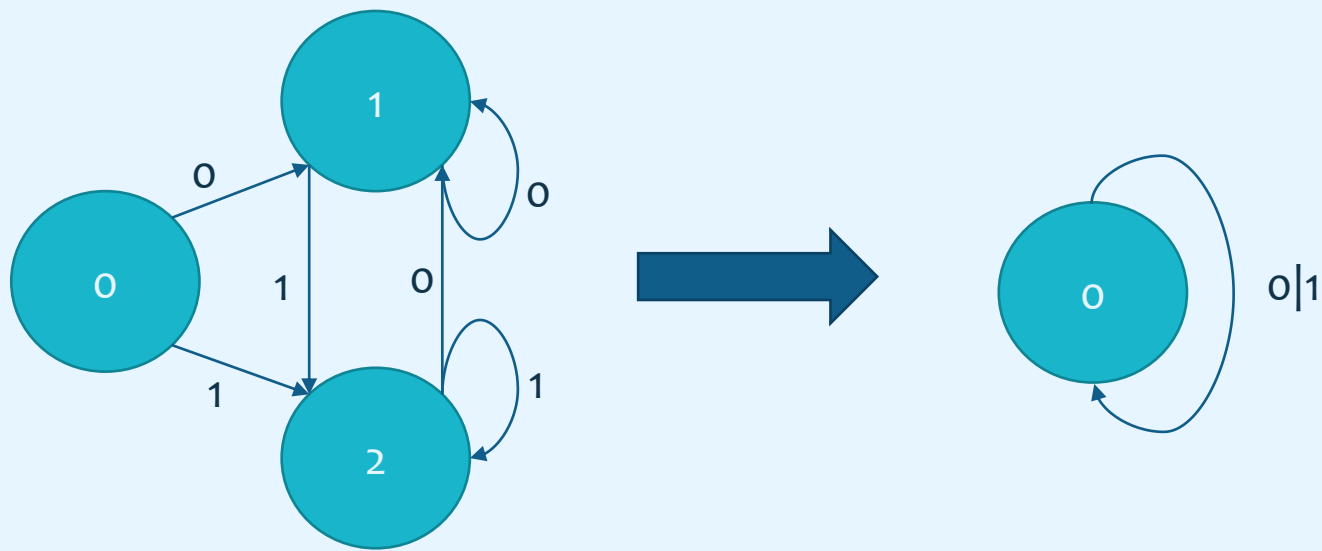
$(00|11)^*((01|10)(00|11)^*(01|10)(00|11)^*)^*$:
偶数个0、偶数个1组成的01串

2.1.2

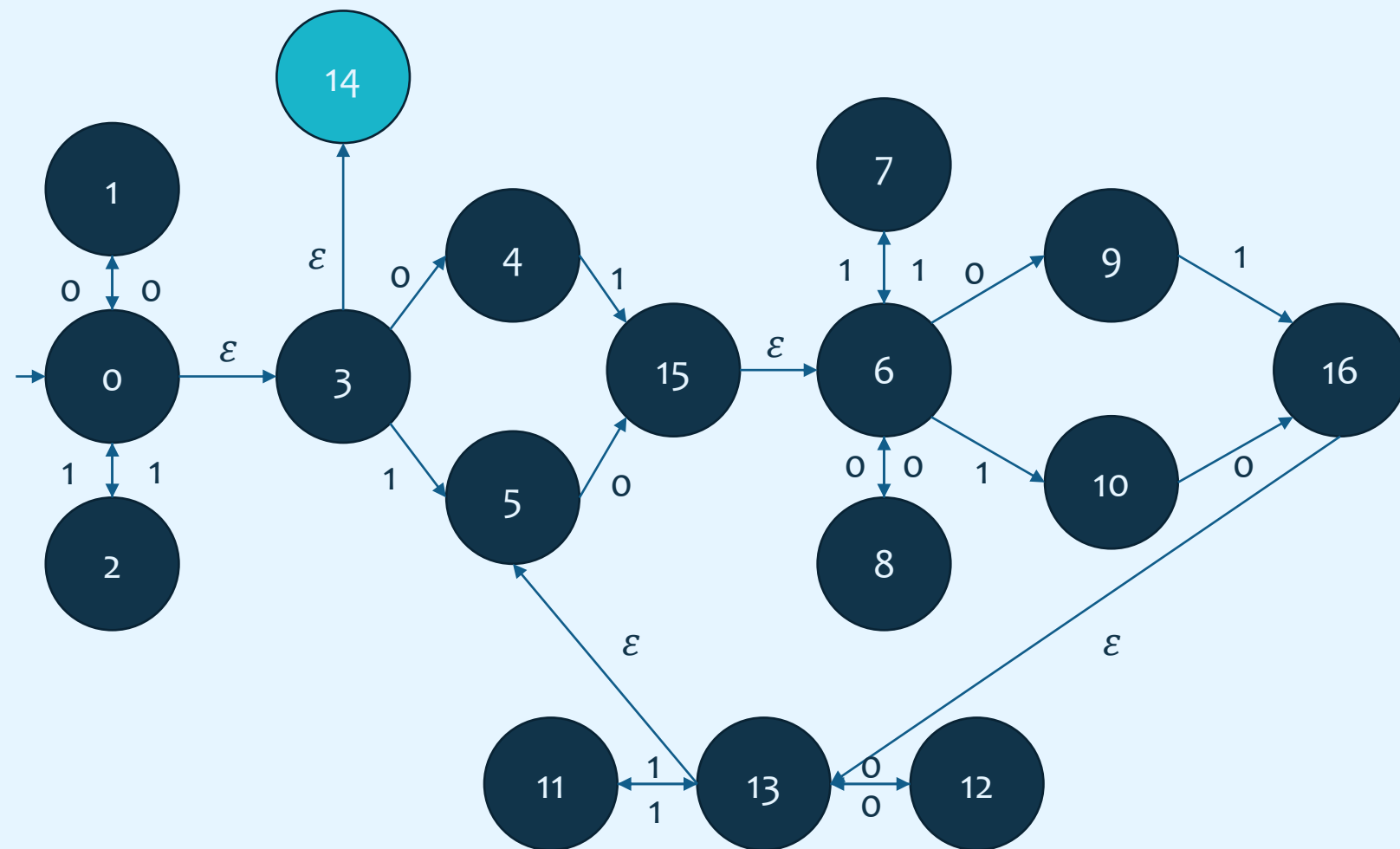


2.1.2

	状态	0	1
0	1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14
1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14
2	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14



2.1.3

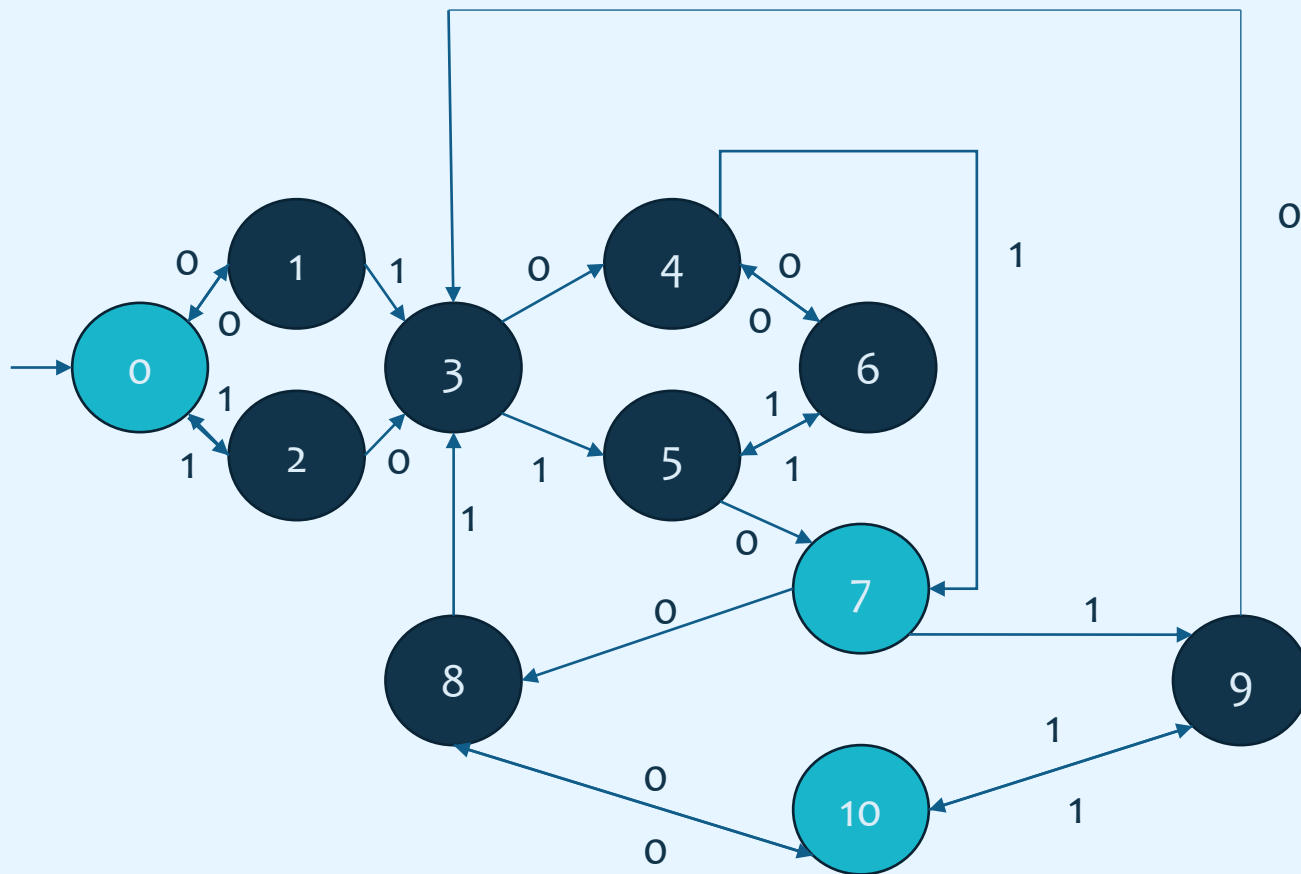


2.1.3

	状态	0	1
0	0, 3, 14	1, 4	2, 5
1	1, 4	0, 3, 14	15, 6
2	2, 5	15, 6	0, 3, 14
3	15, 6	8, 9	7, 10
4	8, 9	6	16, 13, 3, 14
5	7, 10	16, 13, 3, 14	6
6	6	8, 9	7, 10
7	16, 13, 3, 14	11, 4	12, 5
8	11, 4	13, 3, 14	15, 6
9	12, 5	15, 6	13, 3, 14
10	13, 3, 14	11, 4	12, 5

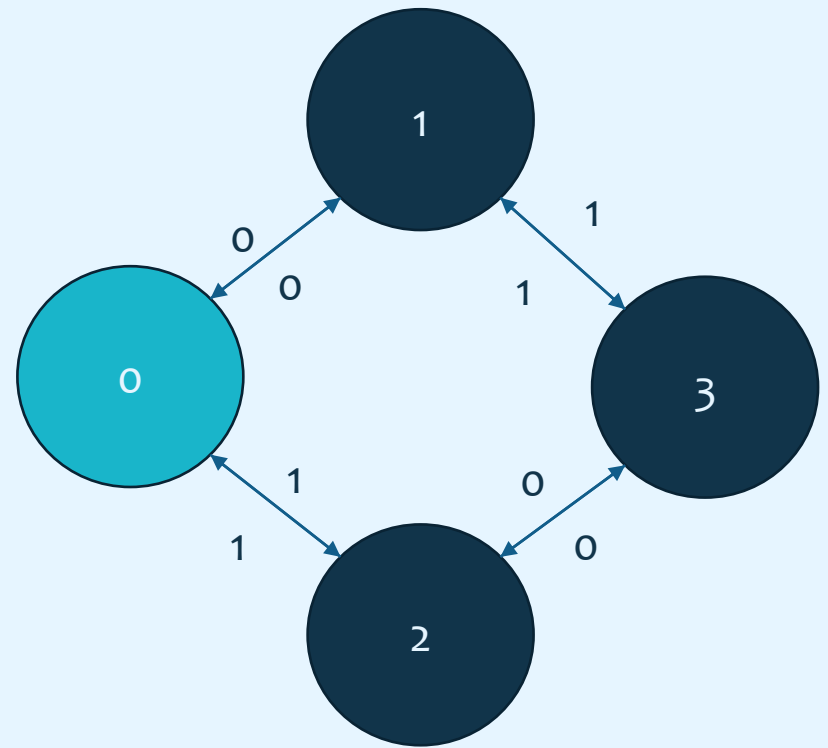


2.1.3



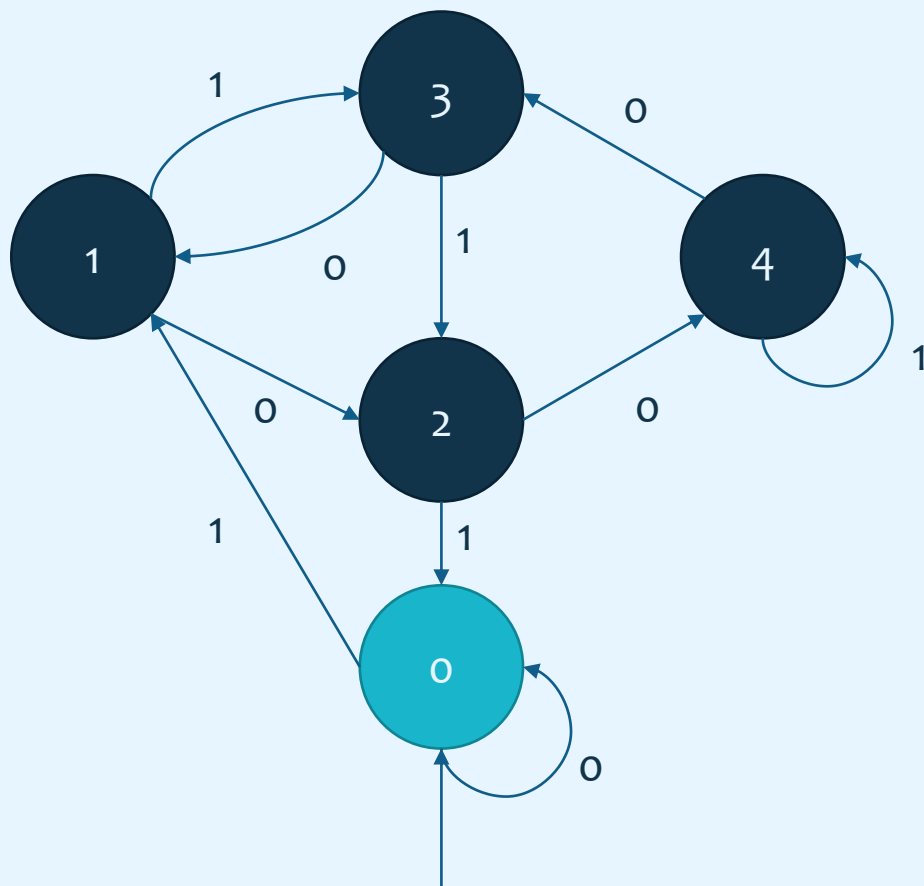
2.1.3

- $I_0 = \{0, 7, 10\}$
- $I_1 = \{1, 2, 3, 4, 5, 6, 8, 9\}$
- $I_2 = \{1, 5, 8\}$
- $I_3 = \{2, 3, 4, 6, 9\}$
- $I_4 = \{2, 4, 9\}$
- $I_5 = \{3, 6\}$



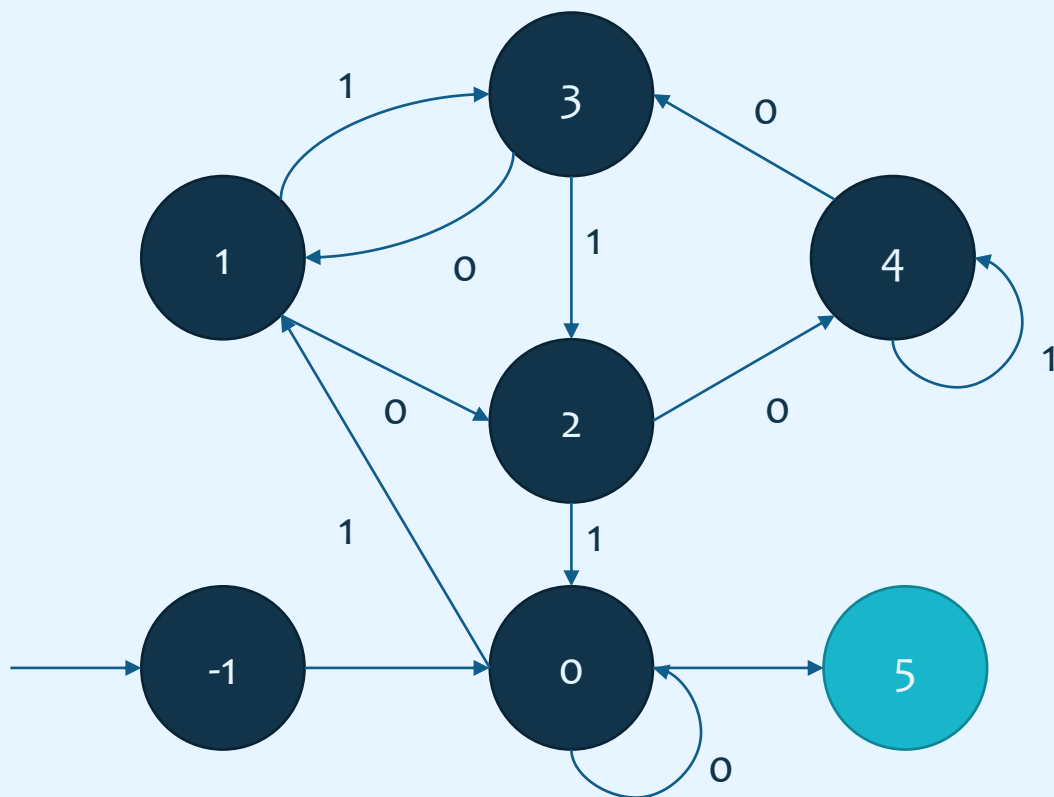
2.2.1

构造DFA:5个状态, 代表被5除余s



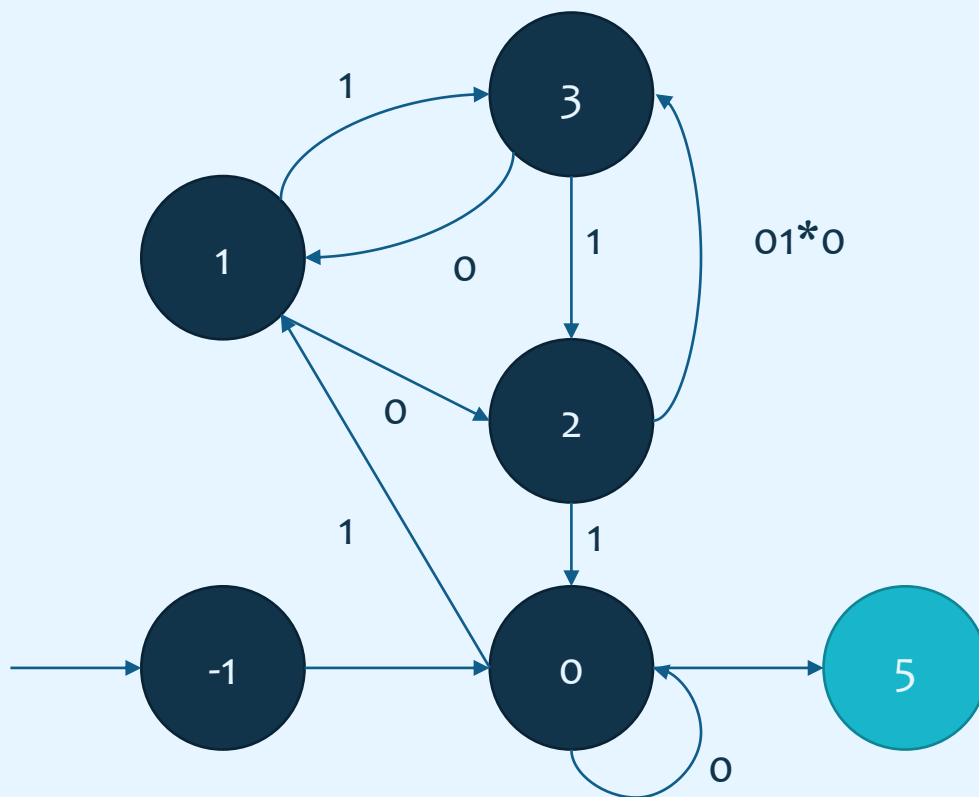
2.2.1

添开始，结束状态



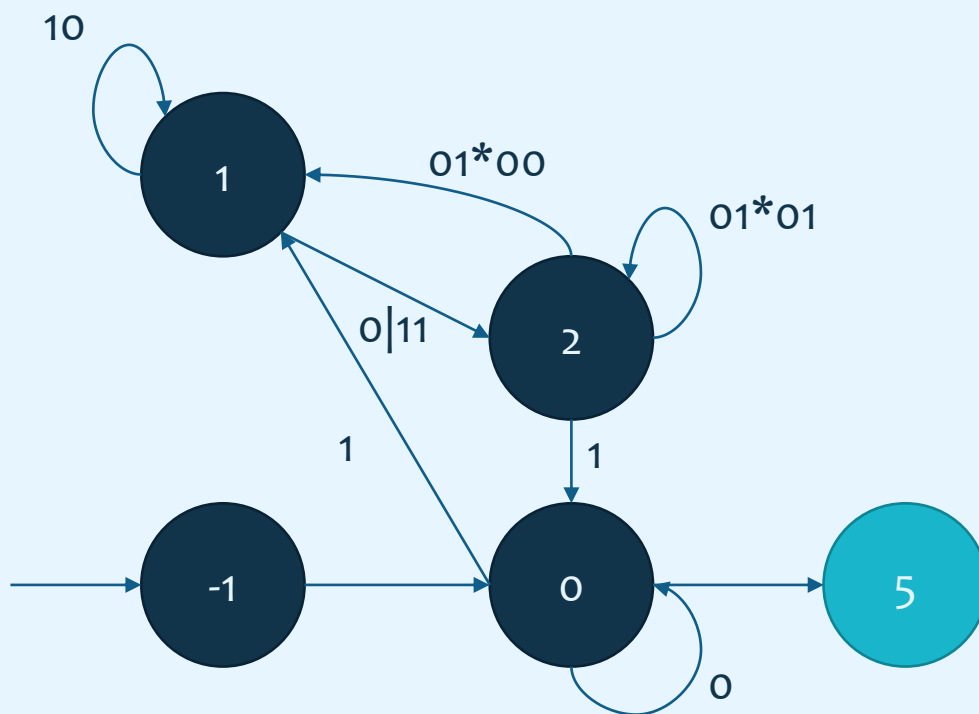
2.2.1

删去4



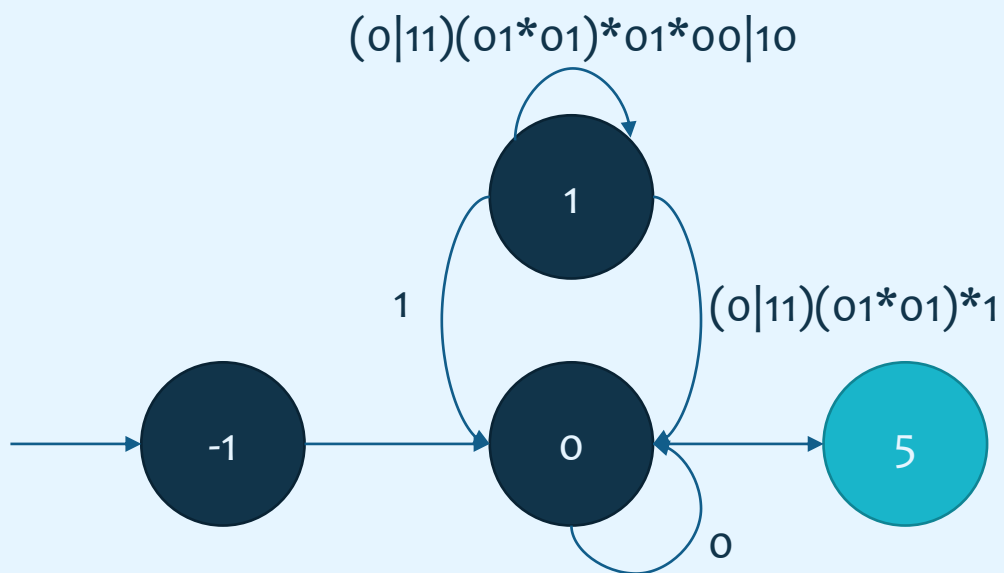
2.2.1

删去₃



2.2.1

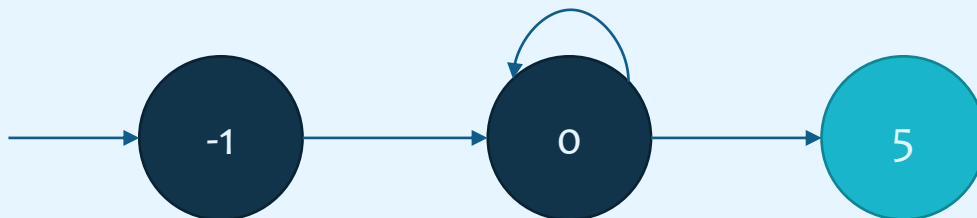
删去₂



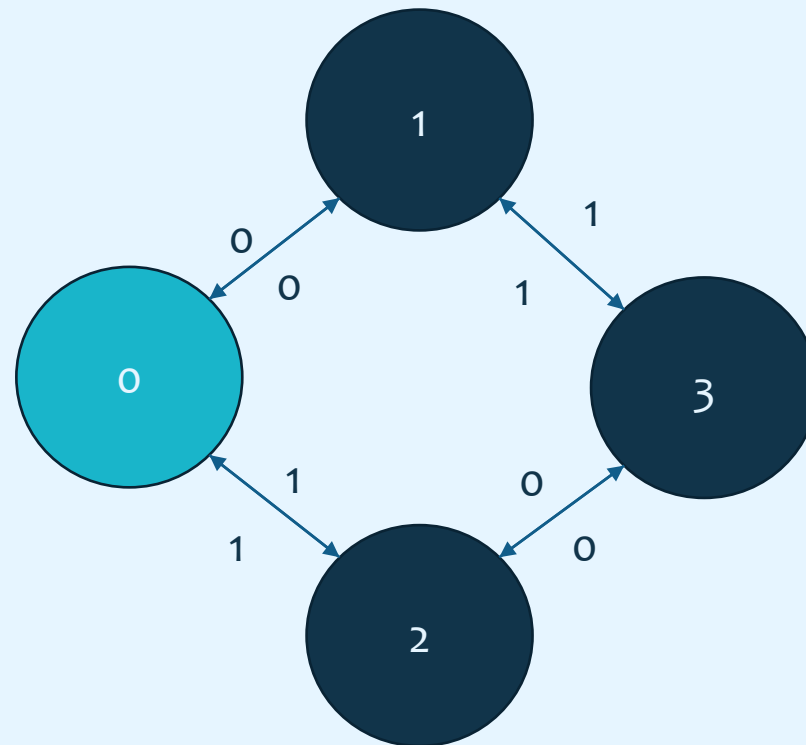
2.2.1

删去1

$(0|1((0|11)(01^*01)^*01^*00|10)^*(0|11)(01^*01)^*1)$

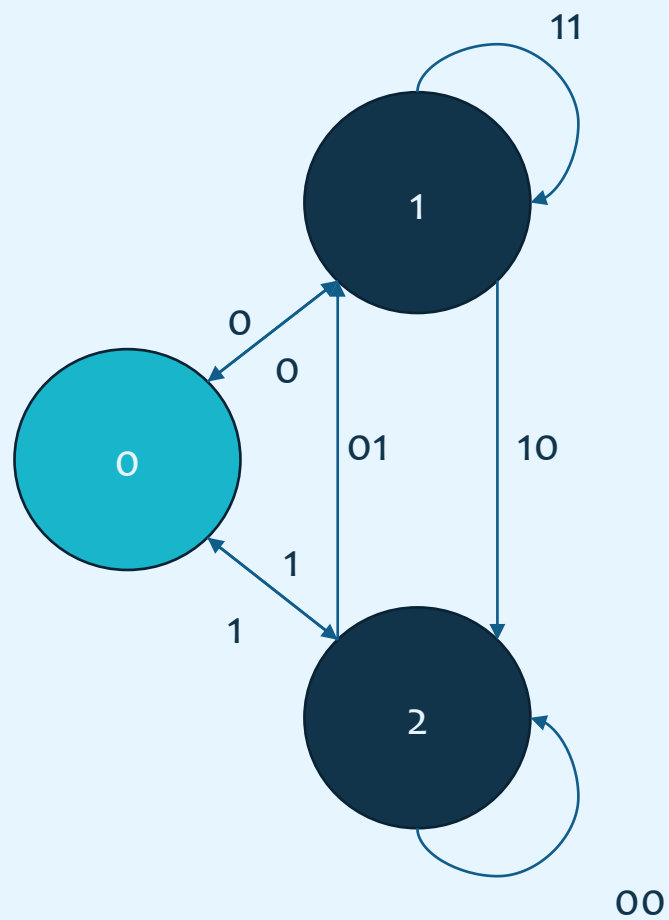


2.2.2



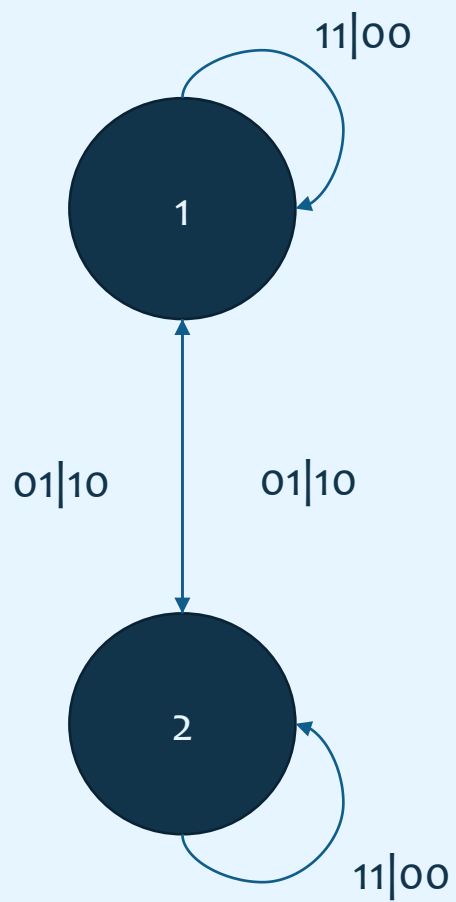
2.2.2

删去3



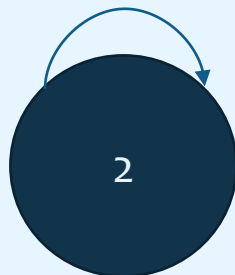
2.2.2

删去0



2.2.2

删去₁

$$(00|11)^*((01|10)(00|11)^*(01|10)(00|11)^*)^*$$


谢谢！

结束页



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