1

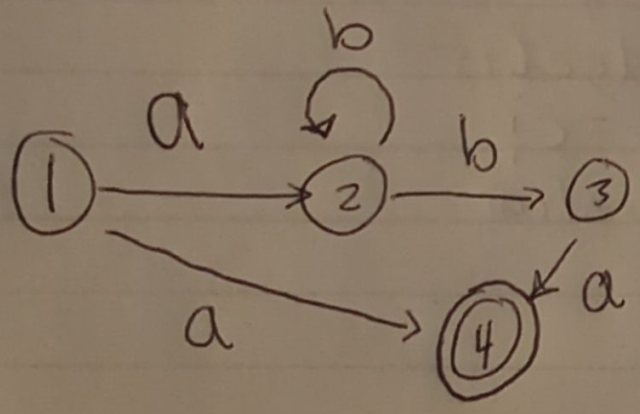
~~abc+|d+e~~

a.) de, abc

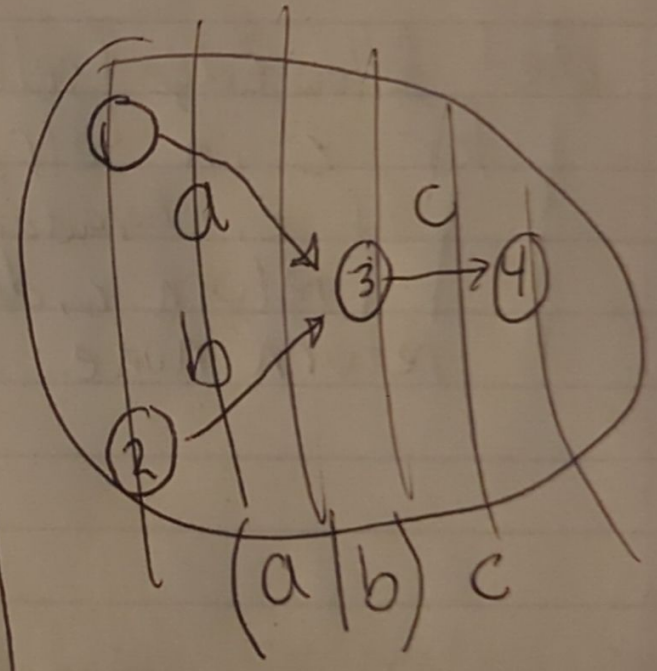
abc+|d+e

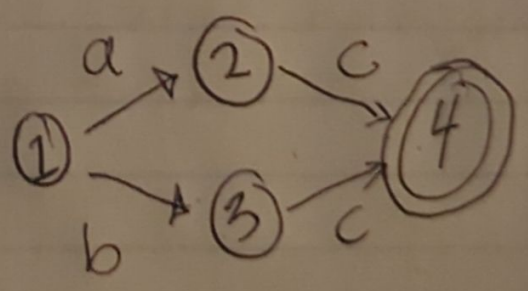
b.) dde
abccc
ddde
~~abccccc~~
ddddde

c.)



ab*a





1

d.)
```
class Edge
    def __init__(self, c, dest):
        self.destination = dest
        self.character = c
```

e.)
```
def setAcceptingState(self):
    Self.isAcceptingState = True

def addEdge(self, e):
    self.edgeList.append(e)

def followEdge(self, c):
    for i in self.edgelist:
        if i.character == c:
            return i.destination
    return none
```

2.

a.) $MSE = \frac{1}{N} \sum_{(x,y) \in D} (y - prediction(x))^2$

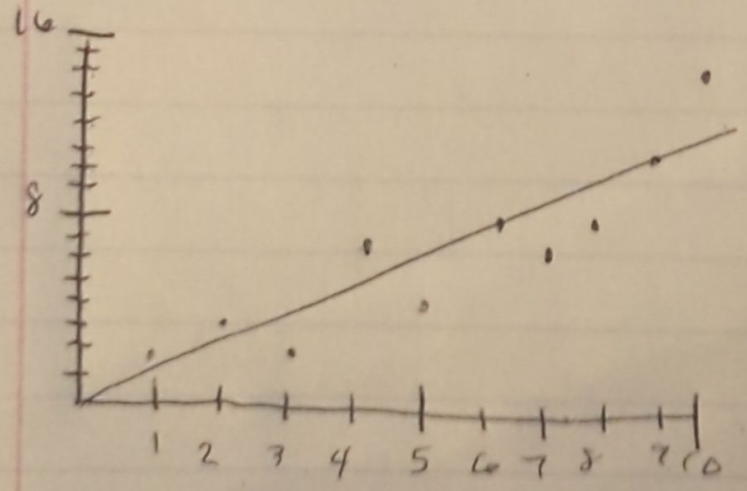
D = dataset

X	Y	Error	Squared error MSE
1	1	0	0
2	3	1	1
3	2	-1	1
4	6	2	4
5	4	-1	1
6	8	2	4
7	5	-2	4
8	8	0	0
9	11	2	4
10	14	4	16
	total		35

$\frac{35}{10} = 3.5$

MSE = 3.5

b.) the asserage distance from extimated is higher than it could be, thre are more points above the line them below, so it is not a good average



← this would be better

2.)

C.) Label → chance of heart disease

Features → age, diet, Blood pressure, age, high - cholesterol