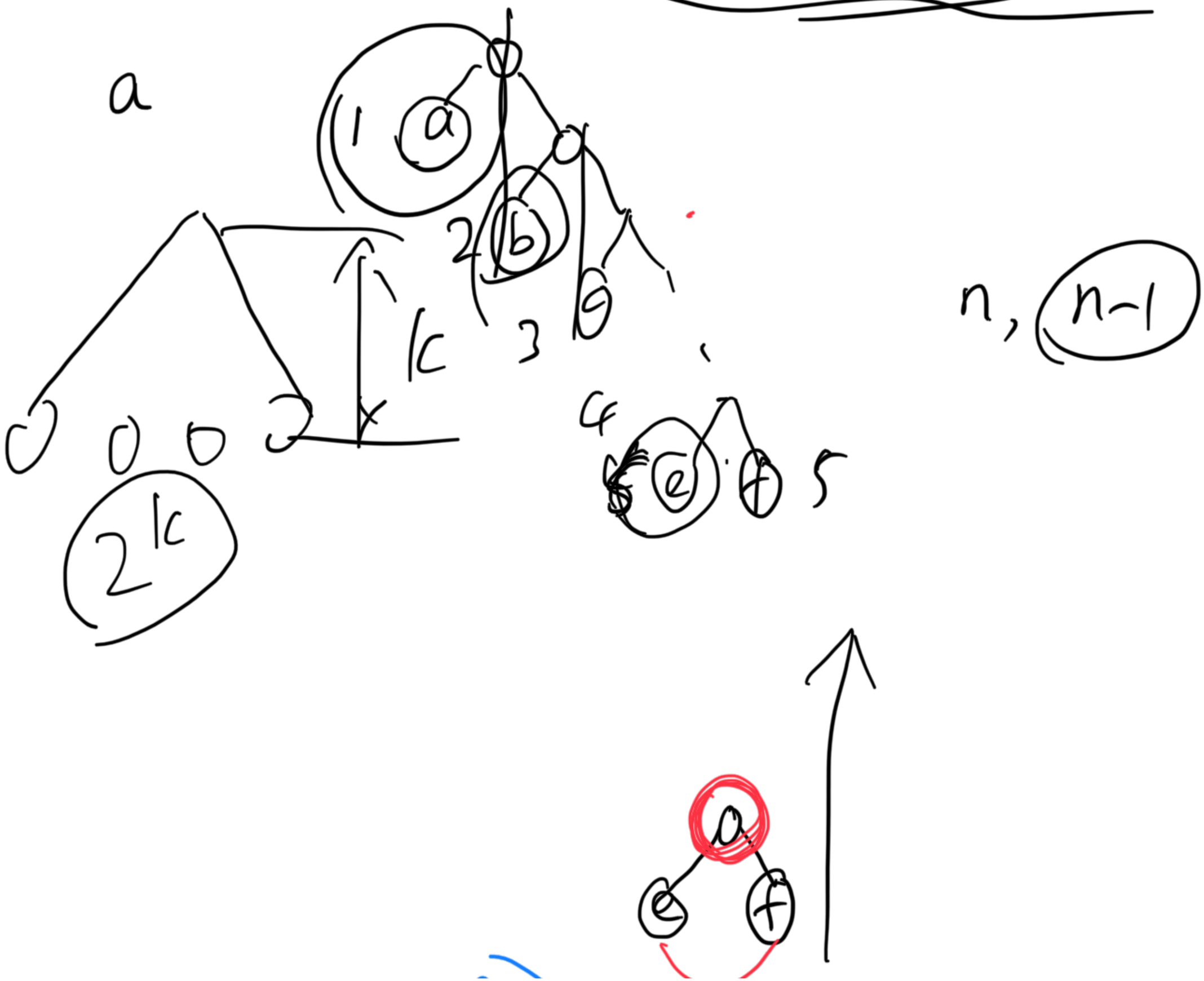
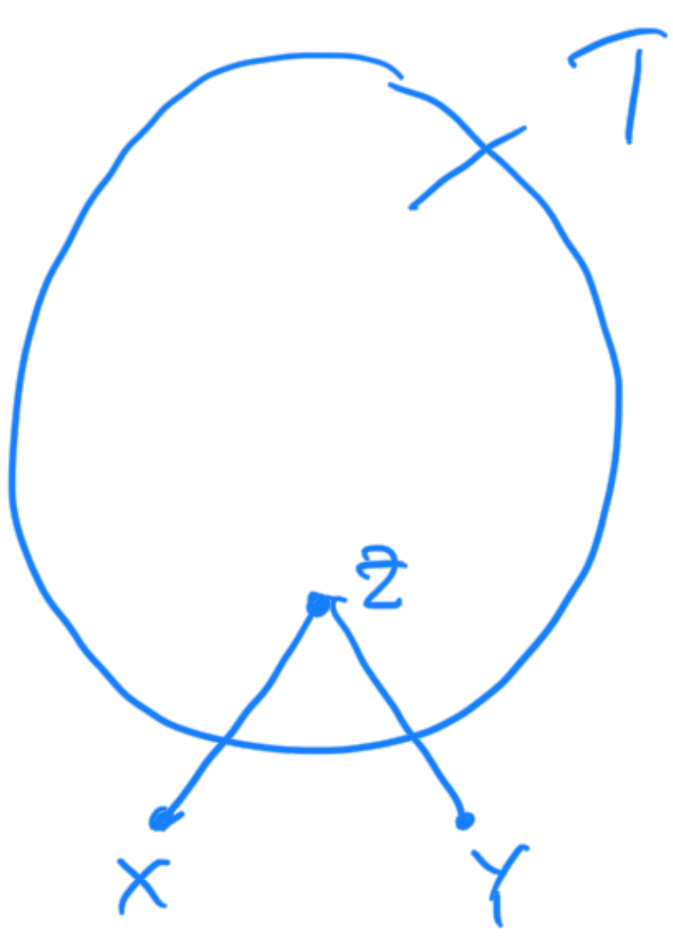
Spring 2022, Lecture 11

shorter code to more freq. char.





$$d_T(x) = d_T(y) = d_T(z) + 1$$

$$B(T) = \sum_{c \neq x,y} c.freq \times d_T(c) + x.freq\, d_T(x) + Y.freq\, d_T(y)$$

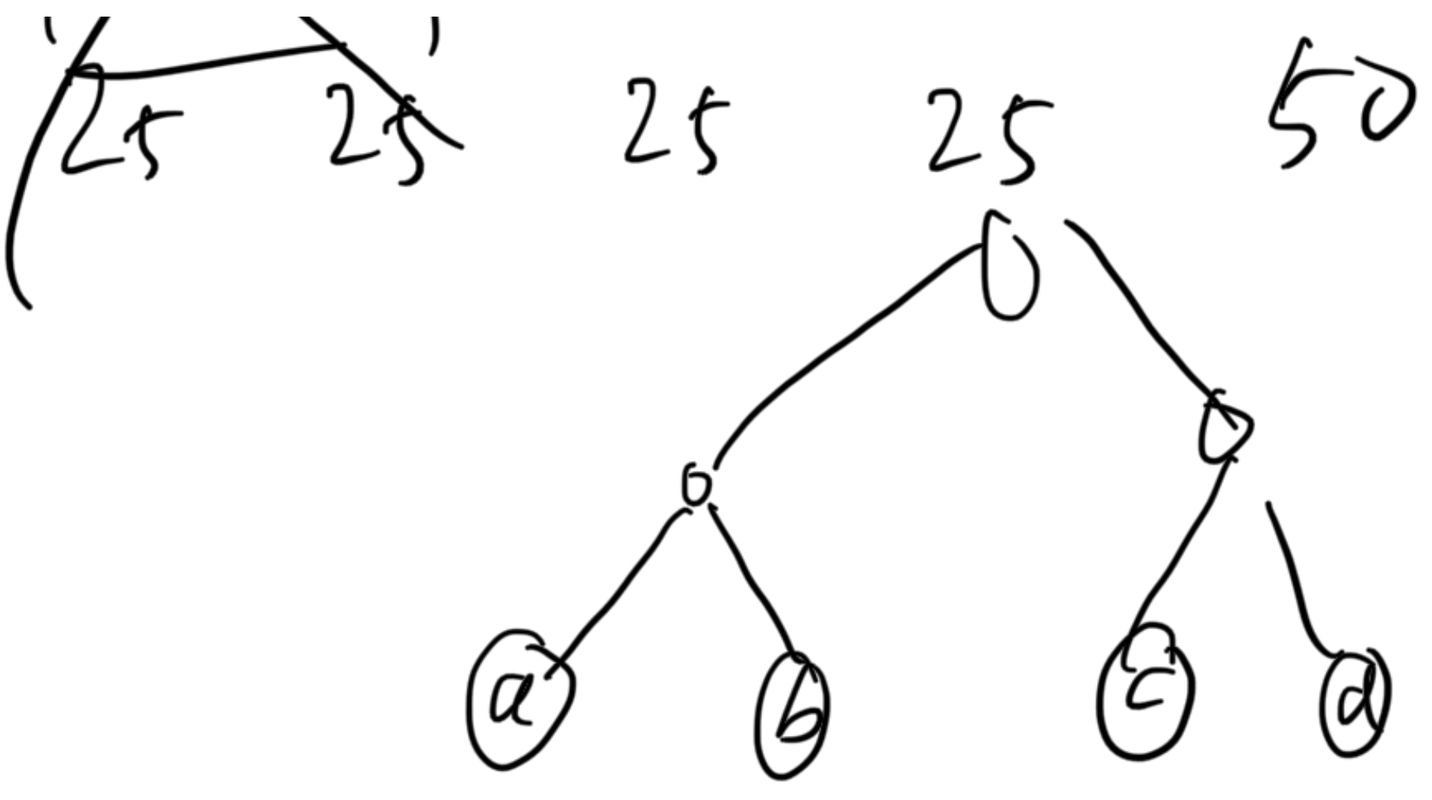
$$= \text{(blank)} + (d_T(z)+1) \times (X.freq + Y.freq$$

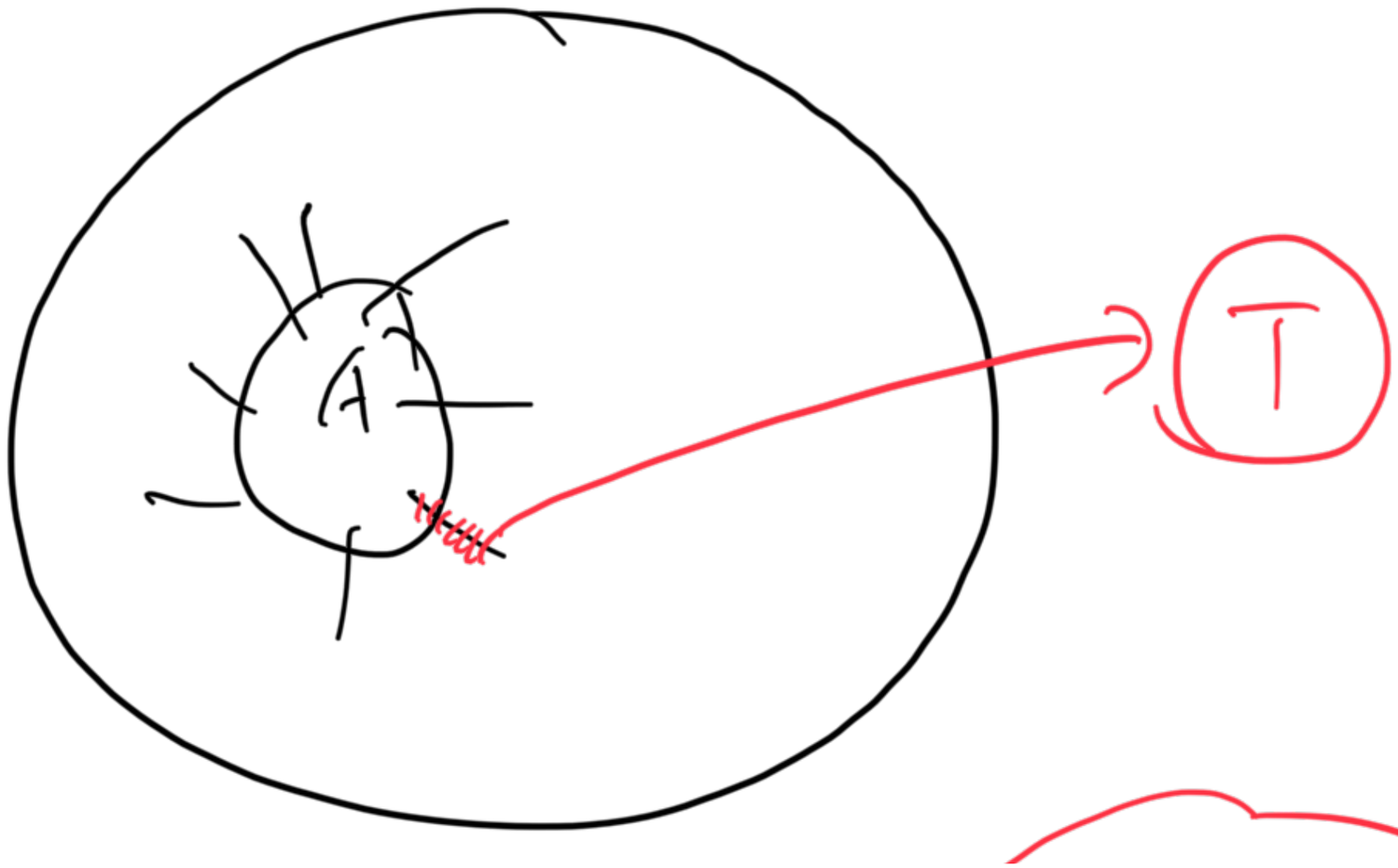
$$= \square + (d_T(z)+1)\, z.freq.$$

$$T' = B(CT') + z.freq.$$

c, d

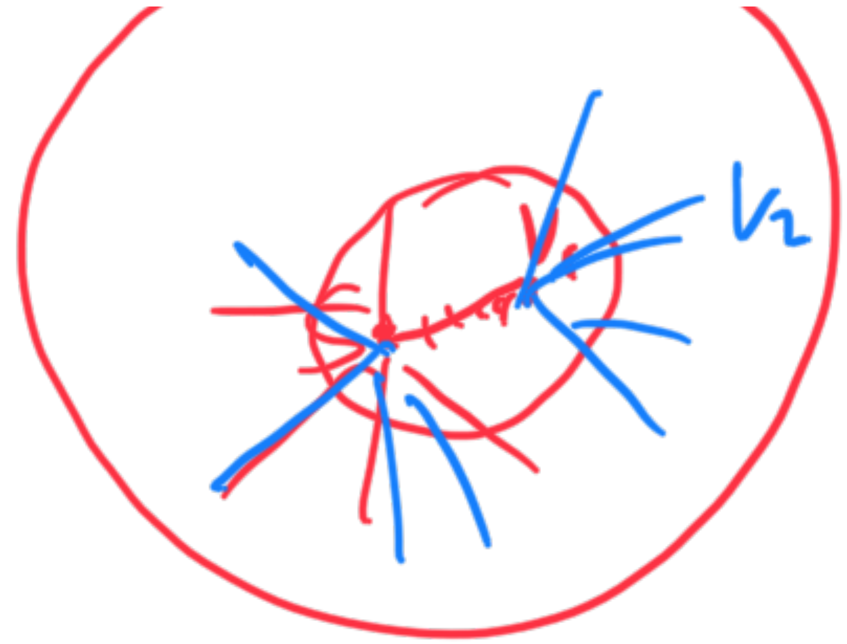
~~b~~ (az)


25
25
25
25
50
0
0
0
a
b
c
d


A
T

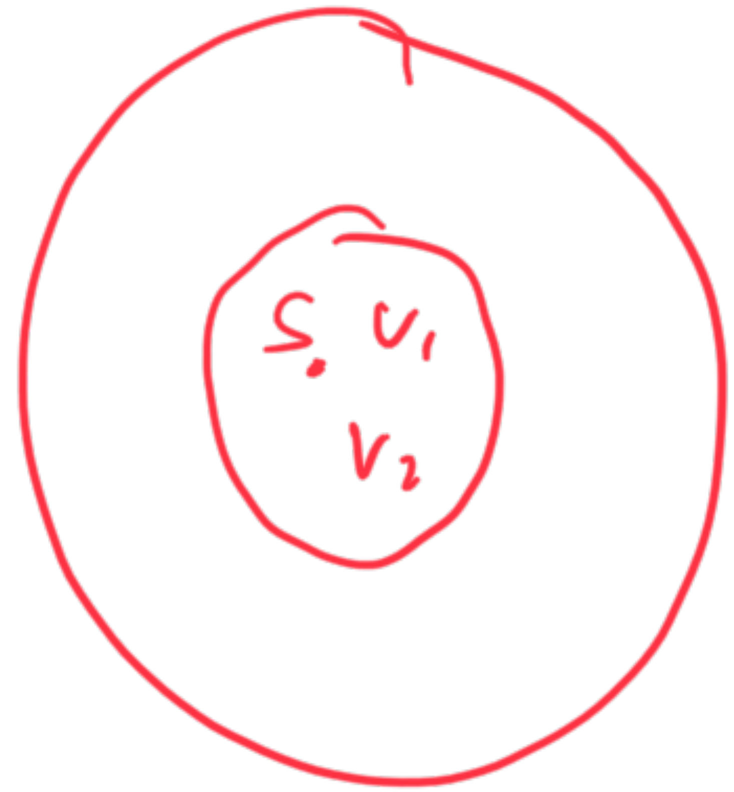
$A_0 = S$

$T = \{(s, v_1), (v_1, v_2)\}$



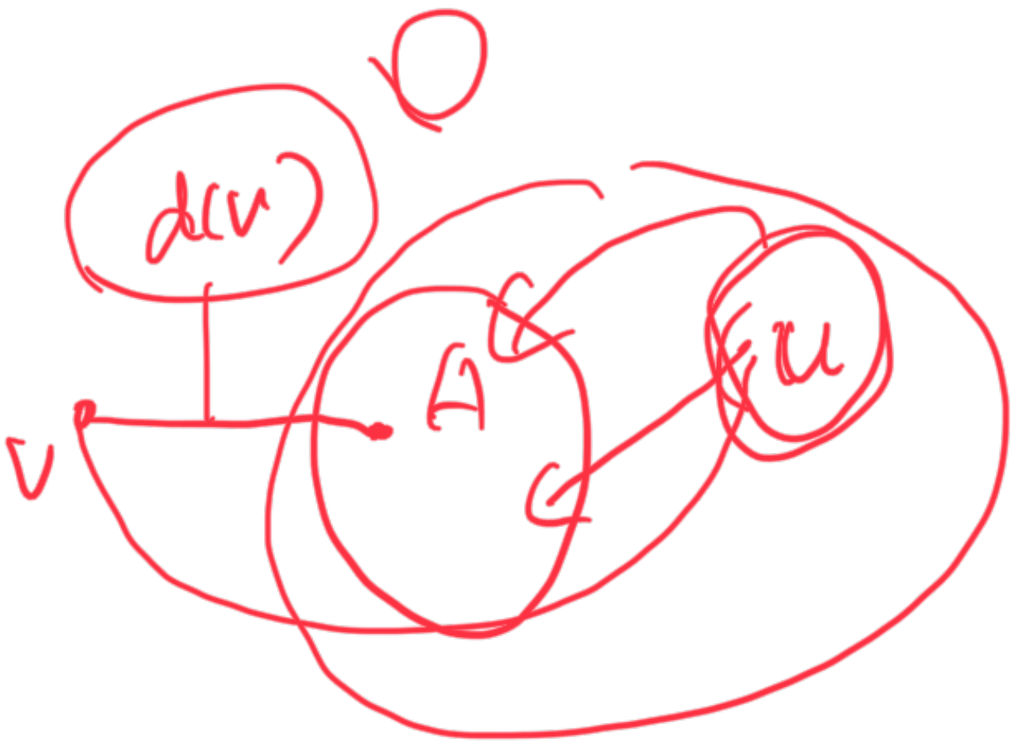
$A_1 = \{s, v_1\}$

$A_2 = \{s, v_1, v_2\}$

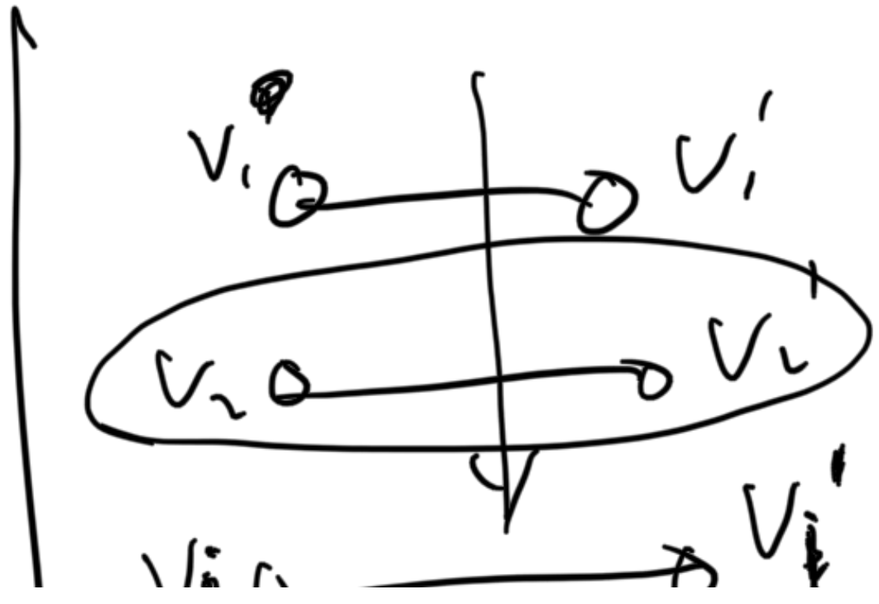


$d(v)$ → lowest weight edge connecting v to A

A, $V - A$

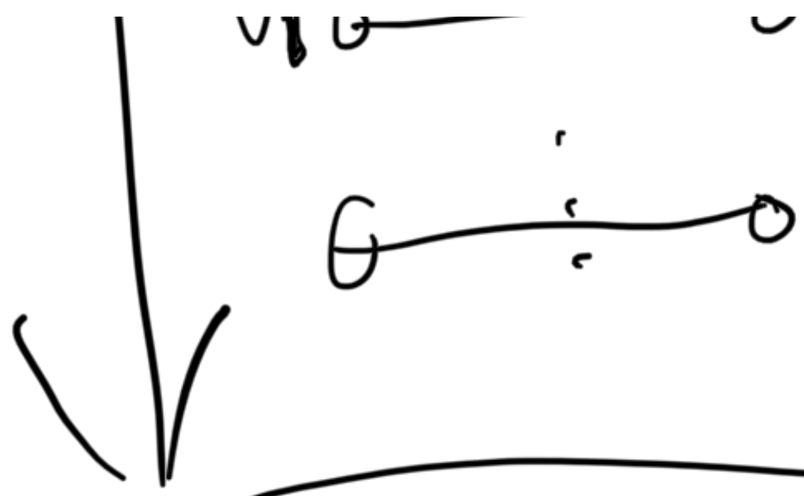


$w(u,v) < d(v)$



iteration i

V_i and V_i' not in the same set



$\langle v_i, v_i' \rangle \in T$?

A ?

V-A

let A be the set v_i belongs to now

$\langle v_i, v_i' \rangle$ is the least weight edge connecting A to V-A

$\langle v_{(c}, v_{(c'} \rangle$

$k \in i$

$v_{(c}$ and $v_{(c'}$ both in A

or $V_{\mathbb{C}}$ and $V_{\mathbb{C}}'$ both not in A