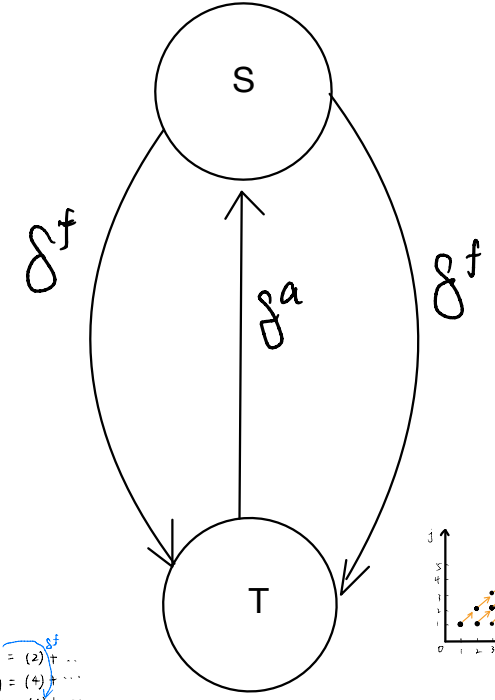
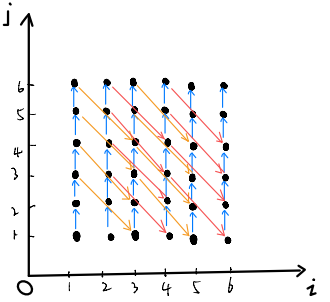
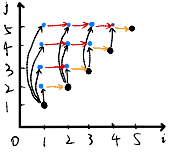
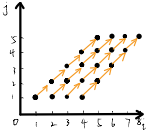
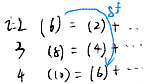
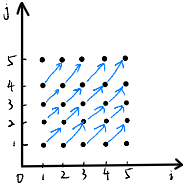

S
T
g^f
g^a
g^f

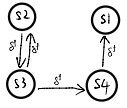

j
i

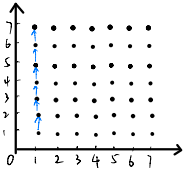


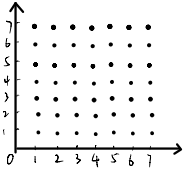


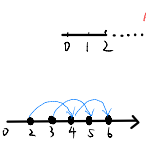


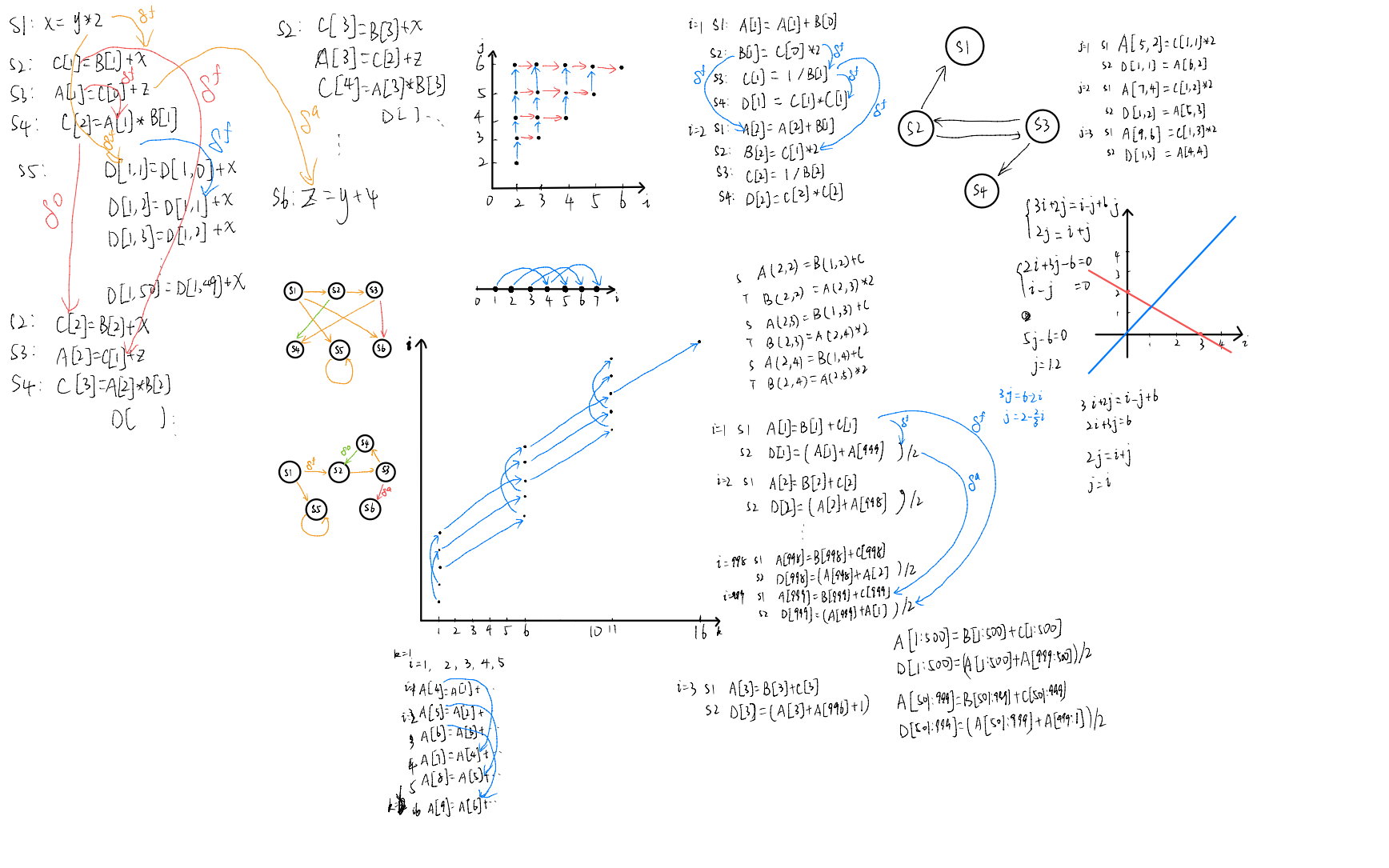



S2
S1
S3
S4








S1: x = y * 2
S2: C[ ] = B[ ] + x
S3: A[ ] = C[ ] + z
S4: C[2] = A[1] * B[ ]
S5: D[1,1] = D[1,0] + x
D[1,2] = D[1,1] + x
D[1,3] = D[1,2] + x
D[1,50] = D[1,49] + x
S2: C[2] = B[2] + x
S3: A[2] = C[1] + z
S4: C[3] = A[2] * B[2]
D[ ]
S2: C[3] = B[3] + x
A[3] = C[2] + z
C[4] = A[3] * B[3]
D[ ]
S6: z = y + 4
i=1 S1: A[1] = A[1] + B[0]
S2: B[0] = C[0] * 2
S3: C[1] = 1 / B[1]
S4: D[1] = C[1] * C[1]
i=2 S1: A[2] = A[2] + B[1]
S2: B[2] = C[1] * 2
S3: C[2] = 1 / B[2]
S4: D[2] = C[2] * C[2]
S1
S2
S3
S4
j=1 S1 A[5,2] = C[1,1] * 2
S2 D[1,1] = A[6,2]
j=2 S1 A[7,4] = C[1,2] * 2
S2 D[1,2] = A[5,3]
j=3 S1 A[9,6] = C[1,3] * 2
S2 D[1,3] = A[4,4]
S T A(2,2) = B(1,2) + C
T B(2,2) = A(2,3) * 2
S A(2,3) = B(1,3) + C
T B(2,3) = A(2,4) * 2
S A(2,4) = B(1,4) + C
T B(2,4) = A(2,5) * 2
i=1 S1 A[1] = B[1] + C[1]
S2 D[1] = (AD) + A[999]) /2
i=2 S1 A[2] = B[2] + C[2]
S2 D[2] = (A[2] + A[998]) /2
i=998 S1 A[998] = B[998] + C[998]
S2 D[998] = (A[998] + A[2]) /2
i=999 S1 A[999] = B[999] + C[999]
S2 D[999] = (A[999] + A[1]) /2
i=3 S1 A[3] = B[3] + C[3]
S2 D[3] = (A[3] + A[998] + 1)
A[1:500] = B[1:500] + C[1:500]
D[1:500] = (A[1:500] + A[999:500]) /2
A[501:999] = B[501:999] + C[501:999]
D[501:999] = (A[501:999] + A[999:1]) /2
{3i+2j = i-j+b
2j = i+j
2i+3j-b=0
i-j=0
3j-b=0
j=12
3j = b-2i
j = 2 - 2/3 i
3i+2j = i-j+b
2i+3j = b
2j = i+j
j = i
k=1
i=1, 2, 3, 4, 5
i=1 A[4] = A[1] +
i=2 A[5] = A[2] +
3 A[6] = A[3] +
4 A[7] = A[4] +
5 A[8] = A[5] +
6 A[9] = A[6] +

$$\begin{cases} 3\cdot i_1+2=5*j_2 \\ 2*j_1-1=i_2+3 \end{cases}$$

$i_2=2j_1-4$

$j_2=\frac{3i_1+2}{5}$

$i_1=$	$i_2=$
1	1
6	4
11	7
16	10

$j_1=$	$i_2=$
2	0
3	2
4	4
5	6
6	8
7	10

$2j_1-4>i_1$

$3i_1+2j_1=i_2-j_2+6$

$2j_1=i_2+j_2$

$3i_1+4j_1=2i_2+6$

$3i_1+4j_1-6=2i_2$

$i_2=\frac{3i_1}{2}+2j_1-3$

$j_2=2j_1-i_2$

$=2j_1-\frac{3i_1}{2}-2j_1+3$

$j_2=3-\frac{3}{2}i_1$

$x^2-2x-2=0$

$x_1=1+\sqrt{3}\quad x_2=1-\sqrt{3}$

$f(n)=C_1(1+\sqrt{3})^n+C_2(1-\sqrt{3})^n$

代入初值

$$\begin{cases} 3=C_1(1+\sqrt{3})+C_2(1-\sqrt{3}) \\ 8=C_1(1+\sqrt{3})^2+C_2(1-\sqrt{3})^2 \end{cases}$$

$(1+\sqrt{3})^2=1+3+2\sqrt{3}=4+2\sqrt{3}$

$(1-\sqrt{3})^2=1+3-2\sqrt{3}=4-2\sqrt{3}$

$8=C_1(4+2\sqrt{3})+C_2(4-2\sqrt{3})$ ①

$3=C_1(1+\sqrt{3})+C_2(1-\sqrt{3})$ ②

①×$(1+\sqrt{3})$:

$(4+2\sqrt{3})(1+\sqrt{3})$

$=4+4\sqrt{3}+2\sqrt{3}+6=10+6\sqrt{3}$

$(4-2\sqrt{3})(1+\sqrt{3})$

$=4+4\sqrt{3}-2\sqrt{3}-6=2\sqrt{3}-2$

$8+8\sqrt{3}=C_1(10+6\sqrt{3})+C_2(2\sqrt{3}-2)$ —③

②×$(4+2\sqrt{3})$:

$(4+2\sqrt{3})(1+\sqrt{3})$

$=4+4\sqrt{3}+2\sqrt{3}+6=10+6\sqrt{3}$

$(1-\sqrt{3})(4+2\sqrt{3})$

$=4+2\sqrt{3}-4\sqrt{3}-6=-2\sqrt{3}-2$

$12+6\sqrt{3}=C_1(10+6\sqrt{3})+C_2(-2\sqrt{3}-2)$ —④

③-④:

$2\sqrt{3}-4=(2\sqrt{3}-2+2\sqrt{3}+2)C_2$

$=4\sqrt{3}\cdot C_2$

$C_2=\frac{2\sqrt{3}-4}{4\sqrt{3}}=\frac{6-4\sqrt{3}}{12}$

$=\frac{3-2\sqrt{3}}{6}$

$8=C_1(4+2\sqrt{3})+(4-2\sqrt{3})\cdot\frac{3-2\sqrt{3}}{6}$

$(4-2\sqrt{3})(3-2\sqrt{3})$

$=12-8\sqrt{3}-6\sqrt{3}+12$

$=24-14\sqrt{3}$

$8=C_1(4+2\sqrt{3})+\frac{24-14\sqrt{3}}{6}$

$4=C_1(4+2\sqrt{3})+4-\frac{7\sqrt{3}}{3}$

$C_1=(4+\frac{7\sqrt{3}}{3})/(4+2\sqrt{3})$

$=\frac{12+7\sqrt{3}}{3}\cdot\frac{1}{4+2\sqrt{3}}$

$(4+2\sqrt{3})(4-2\sqrt{3})$

$=16-12=4$

$14\times3=42$

$(12+7\sqrt{3})(4-2\sqrt{3})$

$=48-24\sqrt{3}+28\sqrt{3}-42$

$=6+4\sqrt{3}$

$\frac{6+4\sqrt{3}}{3\times4}=\frac{3+2\sqrt{3}}{6}$

13. 选第n个 有 $f(n-2,k-1)$

不选第n个. 有 $f(n-1,k)$

$\therefore f(n,k)=f(n-1,k)+f(n-2,k-1)$

$f(2n-1,n)=1=\binom{2n-1+1-n}{n}$

$C_1^n=n$

$n\geq 2n-1$

$1\geq n$

设 $f(n,k)=\binom{n+1-k}{k}$

$f(n+1,k)=f(n-1,k-1)+f(n,k)$

$=\binom{n+1-k}{k}+\binom{n+1-k}{k-1}$

$=\binom{(n+1)+1-k}{k}$

$f(n)=4f(n-2)$

令 $A(x)=\sum_{n=0}^{\infty}f(n)x^n$

$=0+x+\sum_{n=2}^{\infty}4f(n-2)x^n$

$=x+4x^2\sum_{n=2}^{\infty}f(n-2)x^{n-2}$

$A(x)=x+4x^2A(x)$

$A(x)\cdot(1-4x^2)=x$

$A(x)=\frac{x}{1-4x^2}=\frac{x}{(1-2x)(1+2x)}$

$=\frac{1}{4}(\frac{1}{1-2x}-\frac{1}{1+2x})$

$=\frac{1}{4}\left[\sum_{n=0}^{\infty}2^nx^n-\sum_{n=0}^{\infty}(-2)^nx^n\right]$

$=\sum_{n=0}^{\infty}\frac{1}{4}(2^n-(-2)^n)x^n$

P194 2.

$f(n+2)=f(n+1)+f(n)$

$f(n)f(n+2)-f^2(n+1)$

$=f(n)[f(n+1)+f(n)]-f^2(n+1)$

$=f(n)f(n+1)+f^2(n)-f^2(n+1)$

$=f(n)f(n+1)+[f(n)+f(n+1)][f(n)-f(n+1)]$

$=f(n)f(n+1)-f(n+2)f(n-1)$

$f(n)f(n+2)-f^2(n+1)$

$=f(n)[f(n+1)+f(n)]-f^2(n+1)$

$=f(n)f(n+1)+f^2(n)-f^2(n+1)$

$=[f(n)-f(n+1)]f(n+1)+f^2(n)$

$=-f(n-1)f(n+1)+f^2(n)$

$=-[f(n-1)f(n+1)-f^2(n)]$

P196.

17、 $f(1)=2\quad f(2)=4$

$f(n)=f(n-1)+f(n-2)$

$x^2-x-1=0$

$x=\frac{1\pm\sqrt{5}}{2}$

$\therefore$ 通解为 $f(n)=C_1\cdot(\frac{1+\sqrt{5}}{2})^n+C_2\cdot(\frac{1-\sqrt{5}}{2})^n$

$1+5+2\sqrt{5}$

代入初值:
$$\begin{cases} 2=C_1\cdot\frac{1+\sqrt{5}}{2}+C_2\cdot\frac{1-\sqrt{5}}{2} \\ 4=C_1\cdot(\frac{1+\sqrt{5}}{2})^2+C_2\cdot(\frac{1-\sqrt{5}}{2})^2=C_1\cdot\frac{6+2\sqrt{5}}{4}+C_2\cdot\frac{6-2\sqrt{5}}{4} \end{cases}$$

$(1-\sqrt{5})^2=6-2\sqrt{5}$

$=C_1\cdot\frac{3+\sqrt{5}}{2}+C_2\cdot\frac{3-\sqrt{5}}{2}$

$4=C_1(1+\sqrt{5})+C_2(1-\sqrt{5})$

$8=C_1\cdot(3+\sqrt{5})+C_2(3-\sqrt{5})$

$8=C_1(2+2\sqrt{5})+C_2(2-2\sqrt{5})$

$0=C_1(1-\sqrt{5})+C_2(1+\sqrt{5})$

$C_1\cdot(\sqrt{5}-1)=C_2(1+\sqrt{5})$

$C_2=\frac{\sqrt{5}-1}{1+\sqrt{5}}\cdot C_1$

$(\sqrt{5}-1)(1-\sqrt{5})$

$=\sqrt{5}-5-1+\sqrt{5}$

$=2\sqrt{5}-6$

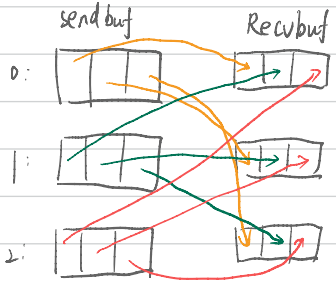
$4=C_1(1+\sqrt{5})+\frac{\sqrt{5}-1}{1+\sqrt{5}}\cdot C_1\cdot(1-\sqrt{5})$

$=C_1(1+\sqrt{5})+\frac{2\sqrt{5}-6}{1+\sqrt{5}}\cdot C_1$

$=C_1\cdot\frac{(2\sqrt{5}-6)+6+2\sqrt{5}}{1+\sqrt{5}}=C_1\cdot\frac{4\sqrt{5}}{1+\sqrt{5}}=4$

$C_1=\frac{1+\sqrt{5}}{\sqrt{5}}=\frac{5+\sqrt{5}}{5}$

$C_2=\frac{5-\sqrt{5}}{5}$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Recv buf
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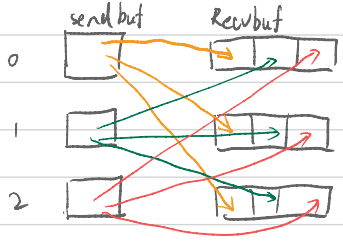
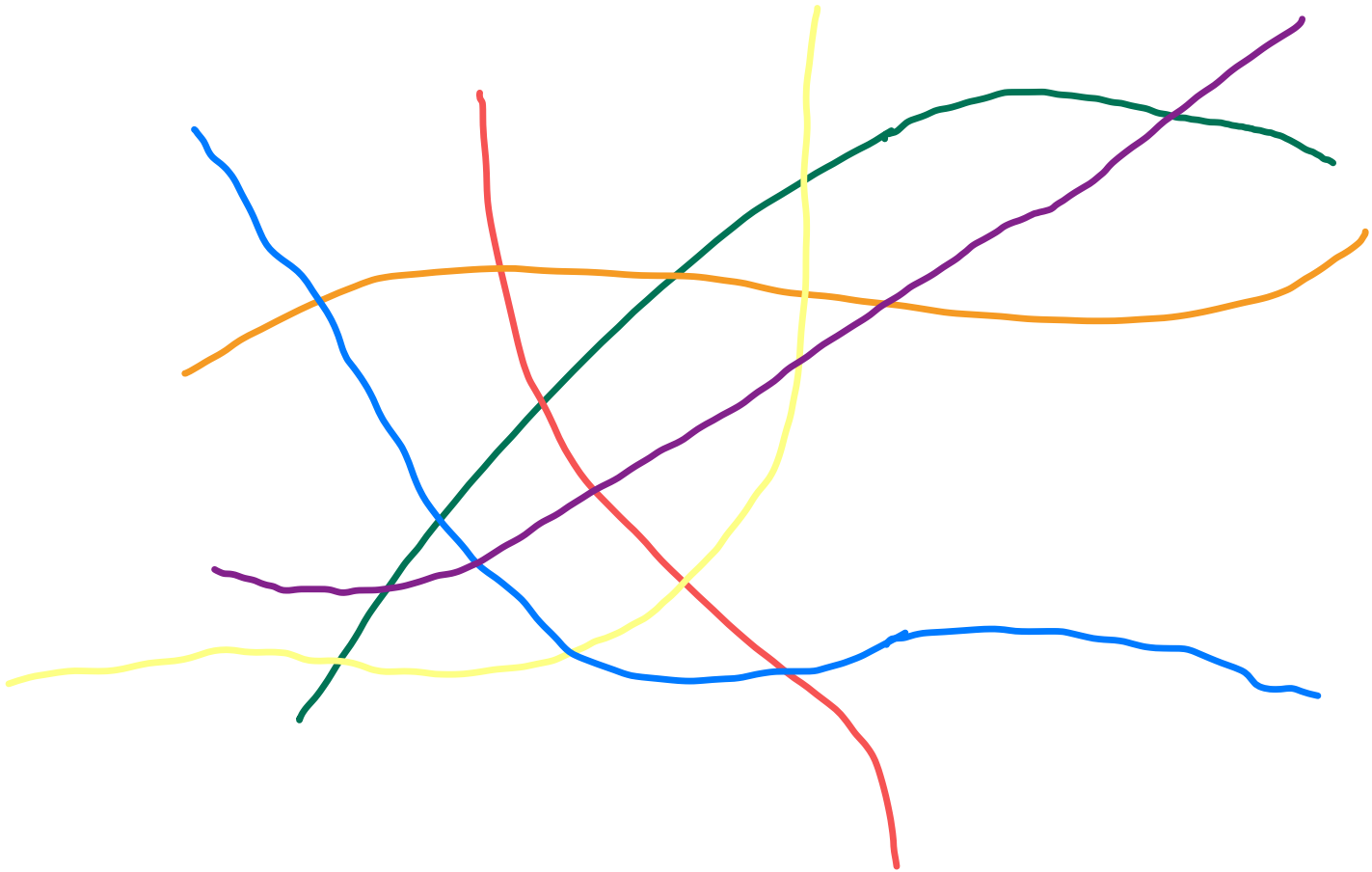
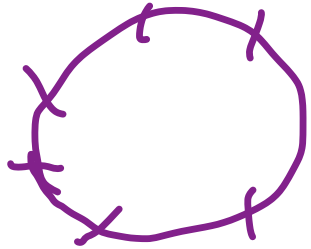
1:
2:


send buf
Recv buf
0
1
2



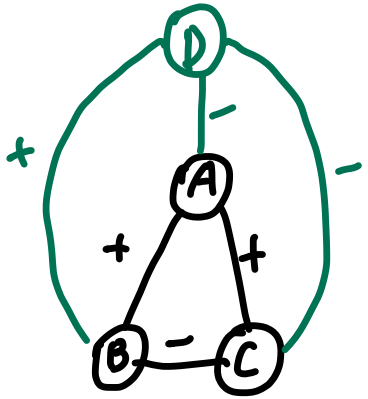
$$1-\left(\frac{5}{6}\right)^4$$



5: $\frac{1}{9}$ 1B: $\frac{4}{9}$ $\frac{2}{n-1}$

$\left(\frac{8}{9}\right)^n$ $\left(\frac{5}{9}\right)^n$

$$\frac{n-2}{n}\cdot\frac{2}{n-1}+\frac{2}{n}\cdot\frac{1}{n-1}=\frac{(n-1)\cdot 2}{n(n-1)}=\frac{2}{n}$$



$\alpha + (1-\alpha)(1-\beta)\alpha + (1-\alpha)^2(1-\beta)^2\alpha + \cdots$

$(1-\alpha)\cdot\beta + (1-\alpha)^2(1-\beta)\beta + \cdots$

$\frac{\beta}{\alpha+\beta-\alpha\beta}$

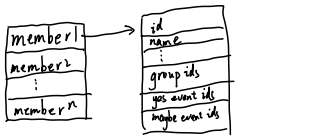
$\alpha\cdot(1+x+x^2+\cdots+x^n+\cdots) = \alpha\cdot\frac{1}{1-x}$

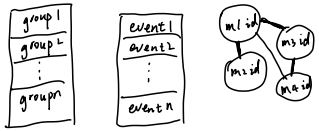
$= \alpha\cdot\frac{1}{1-(1-\alpha)(1-\beta)} = \frac{\alpha}{\alpha+\beta-\alpha\beta}$

$P(x>a) = \frac{1}{2}$

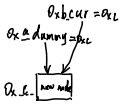
$\int_a^2 \frac{3}{8}x^2 = \frac{1}{8}x^3\Big|_a^2$ ~~$= \frac{1}{8}a^3 = \frac{1}{2}$~~

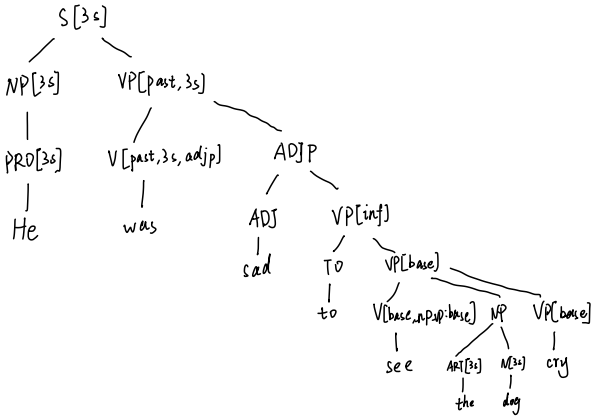
$= 1 - \frac{1}{8}a^3 = \frac{1}{2}$ $a = \sqrt[3]{4}$

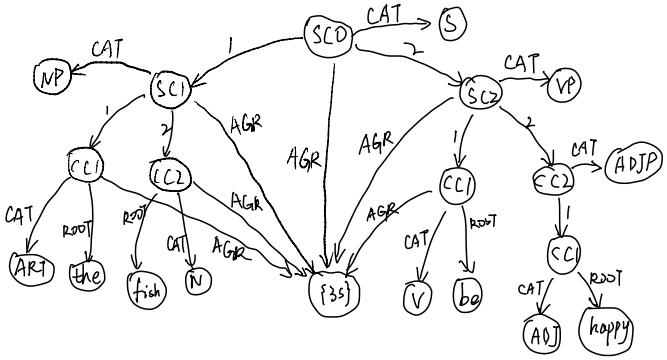

member1
member2
membern
id
name
group ids
yes event ids
maybe event ids


group1
group2
groupn
event1
event2
event n

m1 id
m2 id
m3 id
m4 id


new node


S[3s]
NP[3s]
VP[past,3s]
PRO[3s]
V[past,3s, adjp]
ADJP
He
was
ADJ
VP[inf]
sad
TO
VP[base]
to
V[base_NP_VP:base]
NP
VP[base]
see
ART[3s]
N[3s]
CTY
the
dog


SC0
CAT
S
SC1
NP
SC2
VP
CC1
CC2
ADJP
ART
the
fish
N
V
be
CC1
ADJ
happy
AGR
ROOT