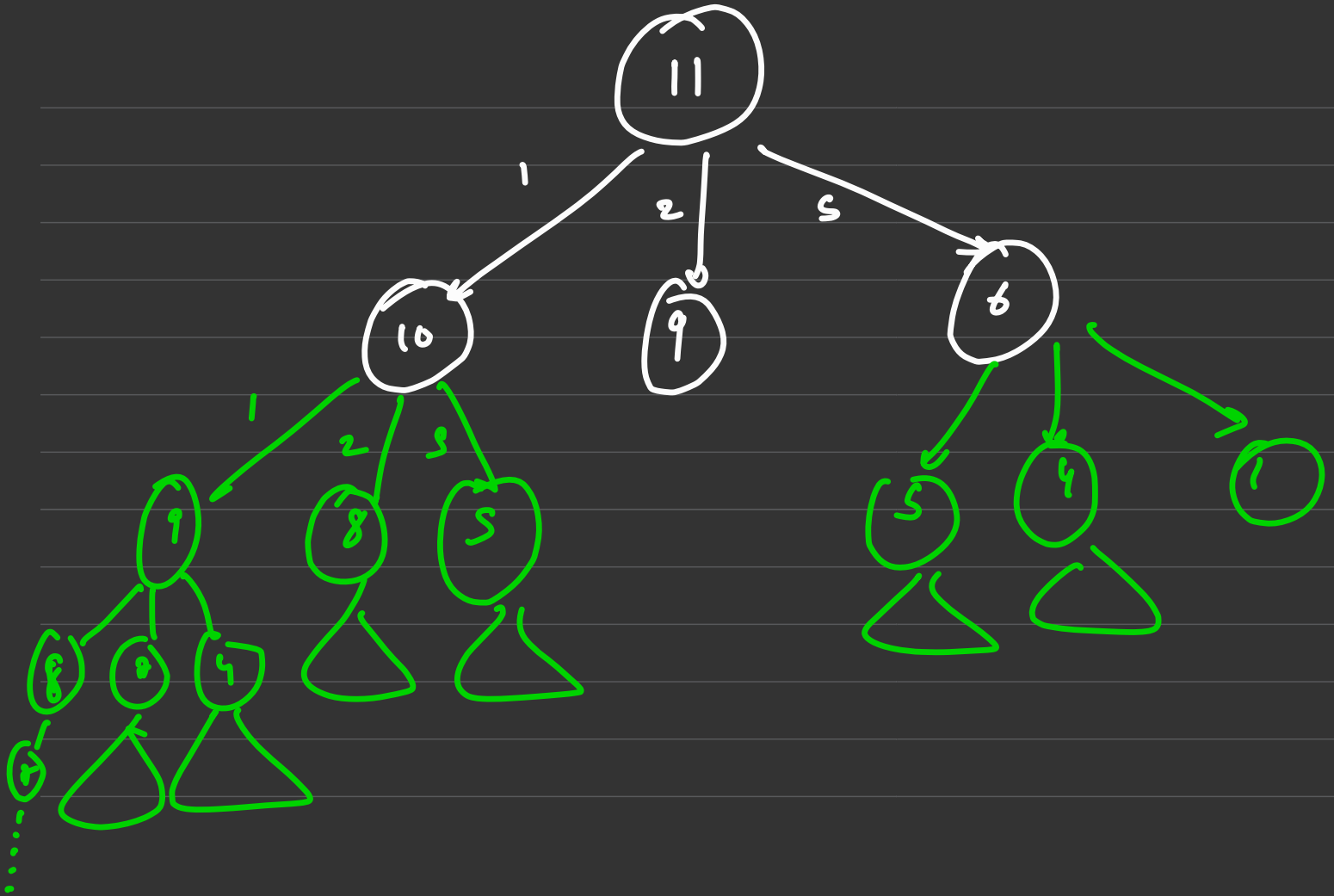

[1, 2, 5]
11
5 + 5 + 1
3


11
1
2
5
10
9
6
1
2
3
9
8
5
5
4
1
8
8
4
4
...

$f(n) = 1 + \min(f(n - c_j))$ $\forall_j \in [0, n-1]$

coins → $[c_1, c_2 \ldots c_n]$

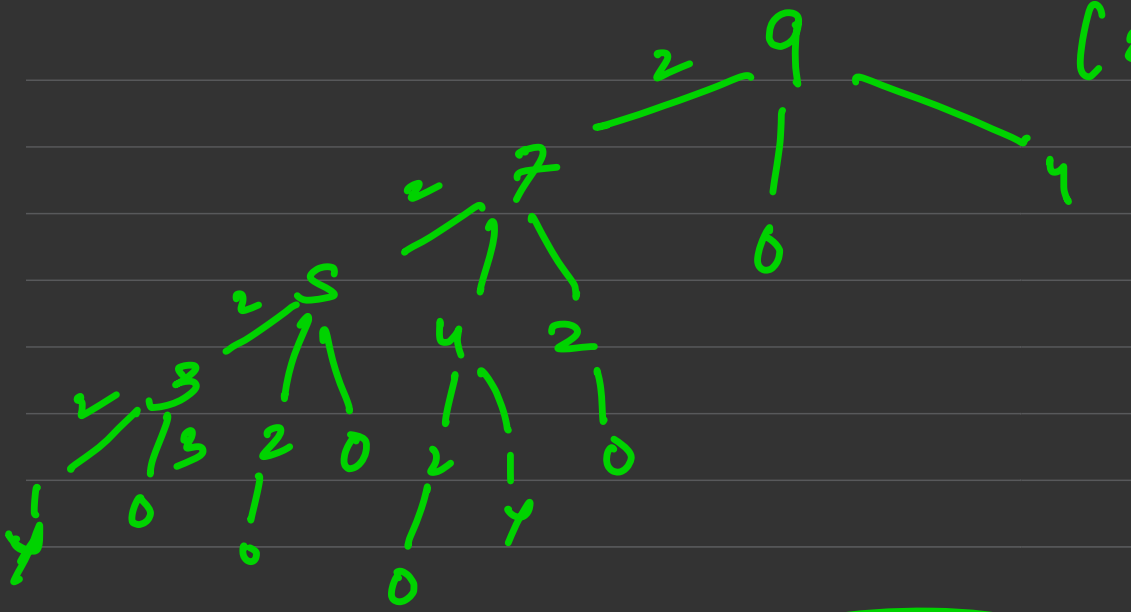
$f(n)$

min coins to reduce n to 0

$n \rightarrow 0$

9

[2, 3, 5]



(2, 3, 5)

2 2 2 3

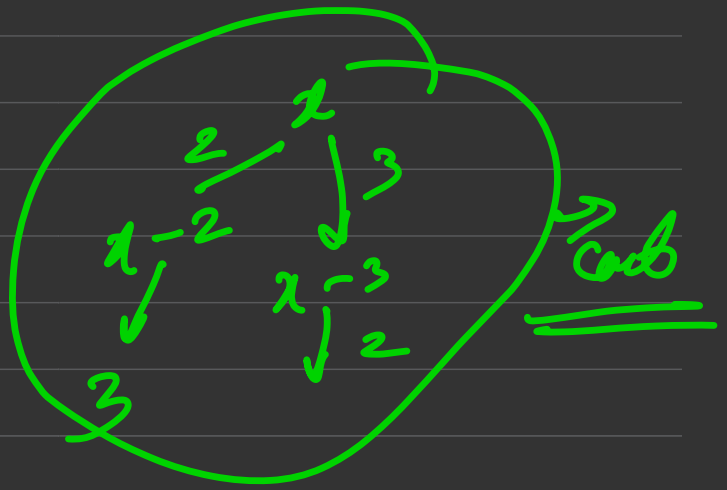
2 2 3 2

permutation

9

[2, 3, 5]

2, 2, 2, 3



2 →

3 →

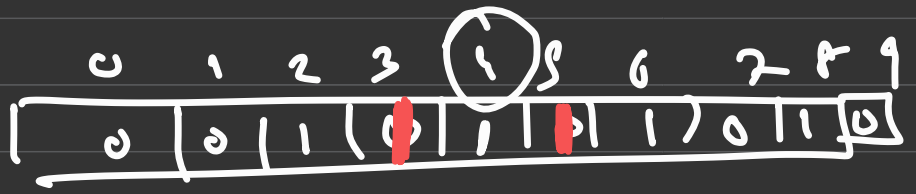
5 →

[2, 3, 5]

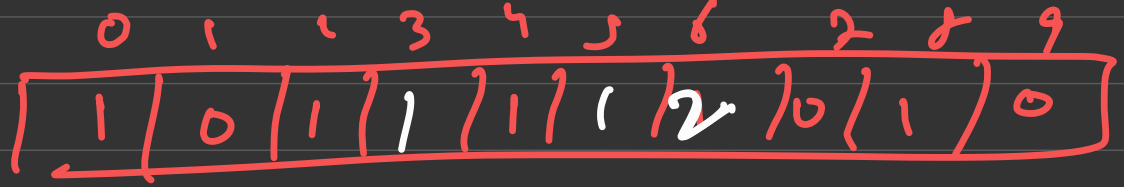
9

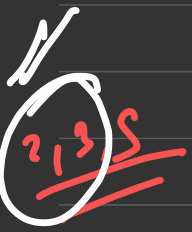
x

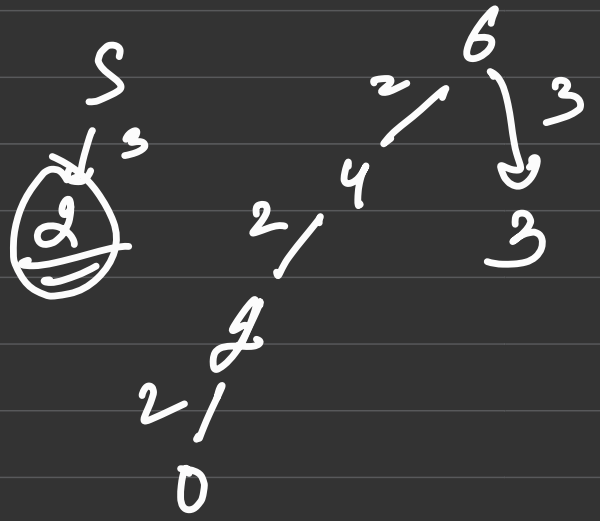
1 − x

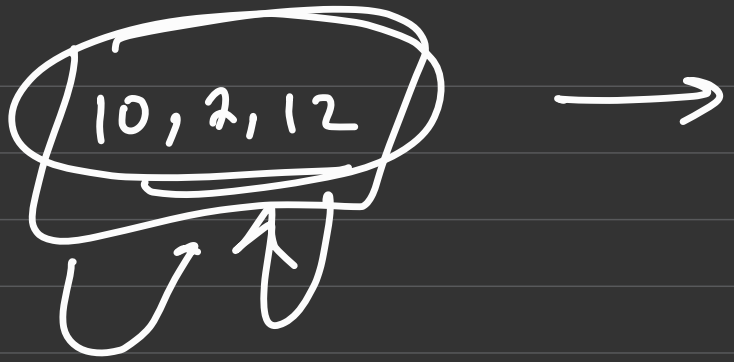


$x = 9$

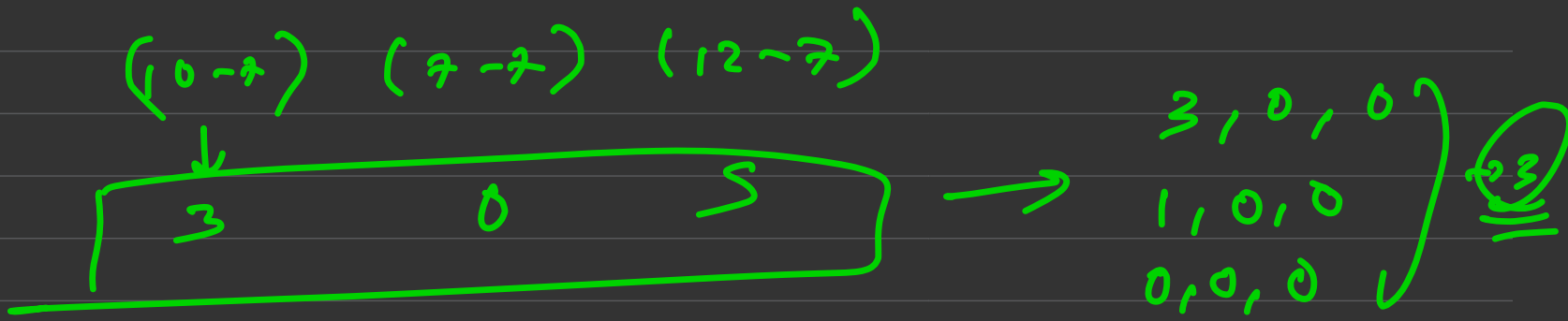







10, 2, 12


10
2
12


(10-7)
(7-7)
(12-7)
3
0
5
3, 0, 0
1, 0, 0
0, 0, 0
23

10 7 12

min

1, 7, 5

min

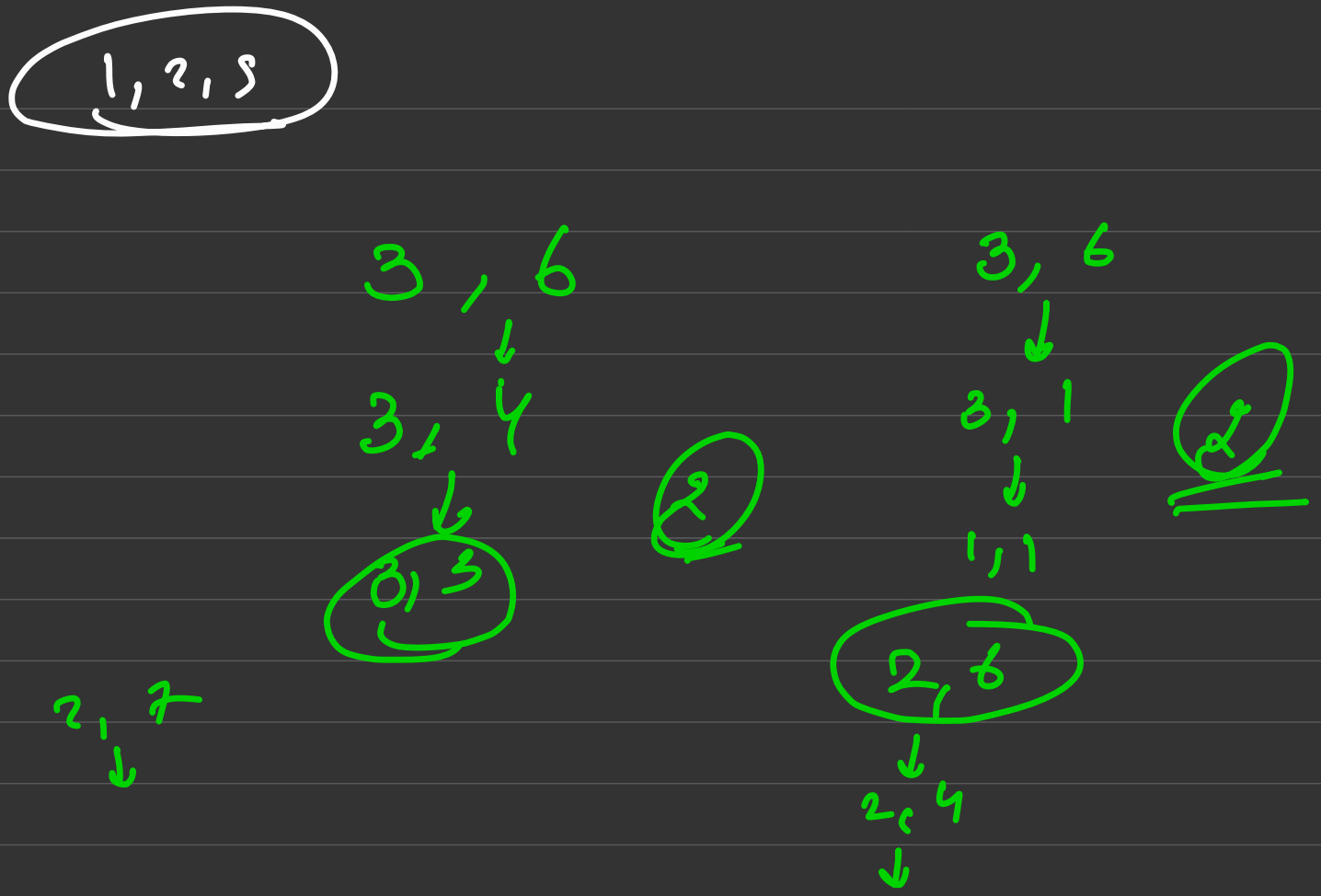
2, 2, 3, 7

~~2, 2, 3, 2~~

2, 2, 2, 2

9


x
min
x
min-1


1, 2, 5
3, 6
3, 4
3, 3
2
3, 6
3, 1
1, 1
2
2, 6
2, 4
2, 7

3, 7

↓

3, 2

↓

2, 2

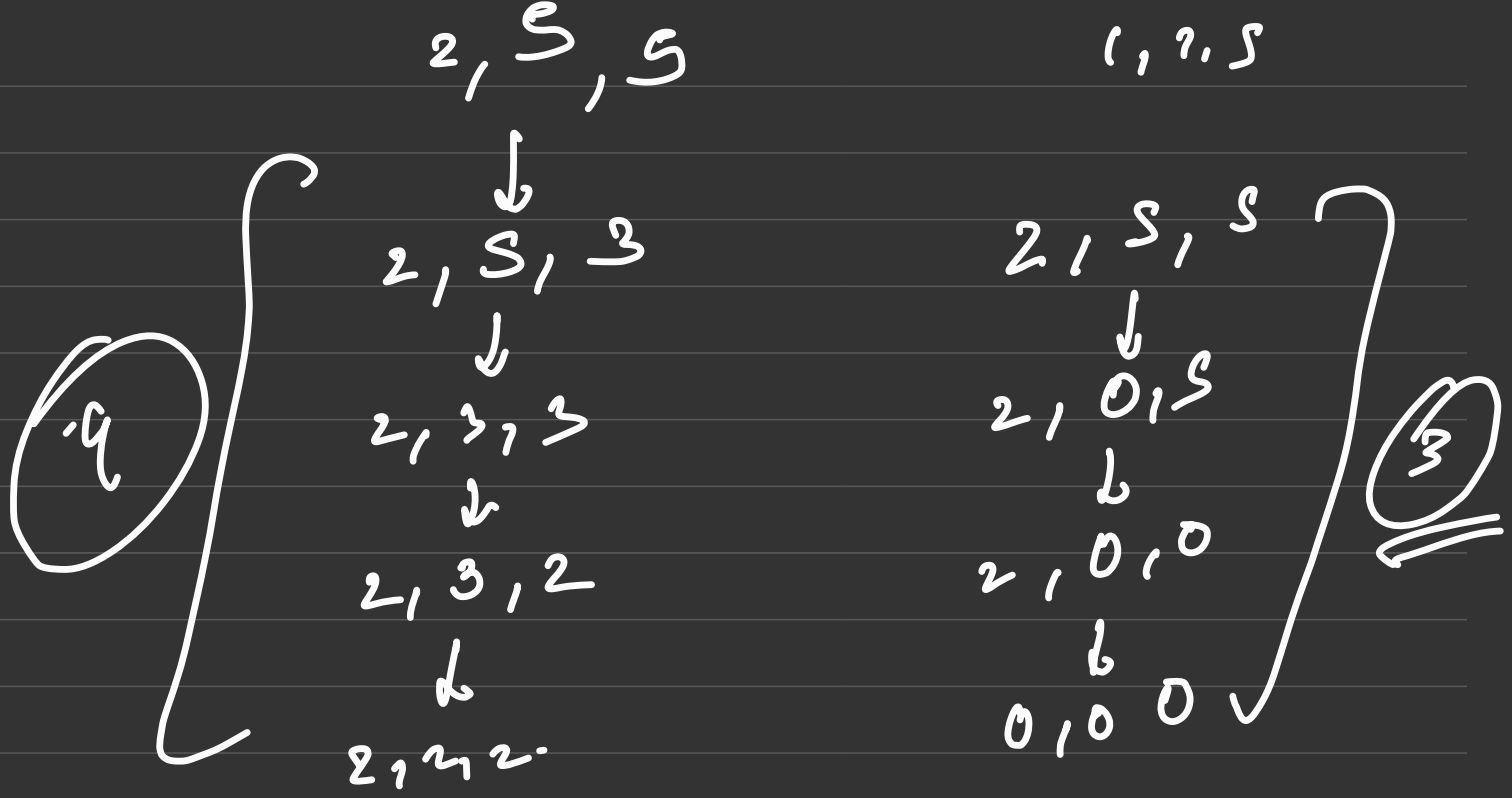
1, 2, 5

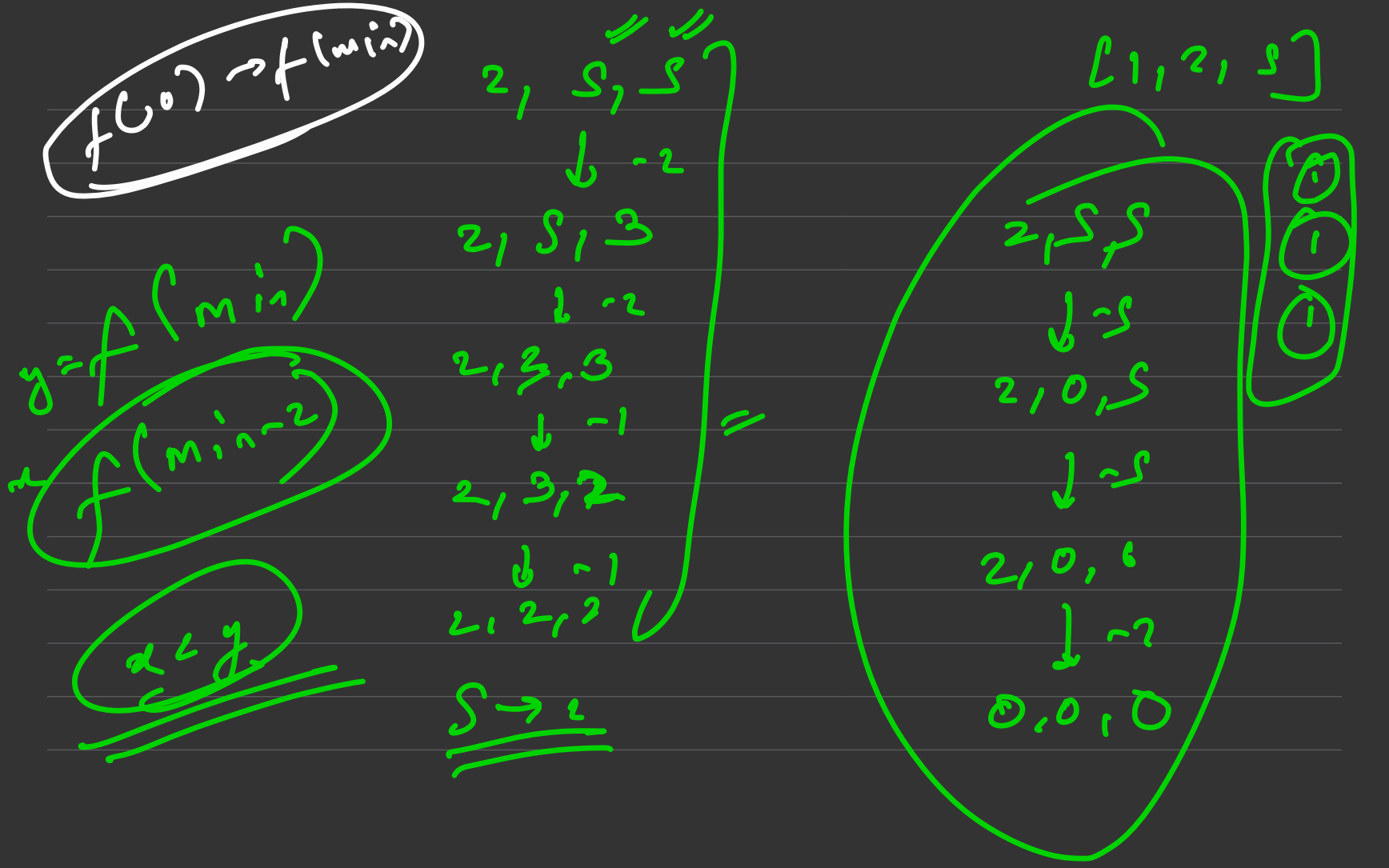
c

3, 7

↓

9


2, 5, 5
2, 5, 3
2, 3, 3
2, 3, 2
2, 2, 2.
9
1, 1, 5
2, 5, 5
2, 0, 5
2, 0, 0
0, 0 0
3


f(0) → f(min)
y = f(min)
f(min-2)
x < y
2, 5, 5
-2
2, 5, 3
-2
2, 3, 3
-1
2, 3, 2
-1
2, 2, 2
5 → 2
=
[1, 2, 5]
2, 5, 5
-5
2, 0, 5
-5
2, 0, 0
-2
0, 0, 0
1
1
1

f(1000)

2, 5, 5

f(i) i → 0

1, 2, 5

2 → 0-indexing

i = 0, 2

final ans = 0

for(i=0; i < min-el; i++){

ans = b

for(j=0; j < n; j++){

cnt = f(a[j] - i)

}

final ans = min(final ans, ans)

}

1000

i = 1

2-1 5-1 5-1

1 4 1

$f(x)$ → minimize to reduce $x \to 0$

1, 4, 2

1, 2, 2

0, 2, 2

0, 0, 2

0, 0, 0

2, 5, 5

2, 5, 3

2, 5, 3

2, 1, 3

2, 1, 1

1, 2, 5

0, 3, 3 → 0

2, 5, 5 → 9

0, 3, 3
↓
0, 1, 3
↓
0, 1, 1
↓
0, 0, 1
↓
0 0

2, 5, 5
↓
2, 5, 5
↓
2, 3, 5
↓
2, 2, 3
↓
2 2