

4/10/2023

70. Climbing Stairs



$$\frac{n}{2} =$$

$$\frac{5}{2} = 2$$

od
1: $\leftarrow n=5$

ev
2: $\leftarrow \frac{n}{2} \quad 2$

od
3: If $\frac{n}{2} \neq 0$

$$2 \text{ if } n/2 = 0$$



3rd



1 1 1 1

4th

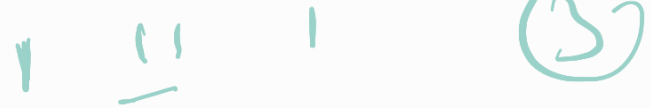


$$f(1) = 1$$

$$f(2) = 2$$

$$f(3) = 3$$

$$f(4) = 5$$



①

②

③

④

⑤

$f(4)$

↓

$f(3) +$

$f(2) +$

$f(1)$



5th

<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(1)
1	1	1	1	1	(2)
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(3)
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(4)
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(5)
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(6)
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(7)
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	(8)

$$\left. \begin{array}{l} f(1) = 1 \\ f(2) = 2 \end{array} \right\} \text{base Condition}$$

$$f(3) = f(2) + f(1)$$

~~2 + 1~~

~~3~~

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

$$\left. \begin{array}{l} 1 \\ 2 \end{array} \right\}$$

1	2	<u>2+1</u>
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1 2 }

1	2	<u>2+2</u>	<u>2+2</u>	
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1 2 3 4 5 -





Stairs (n-1) + Stairs (n-2)

$$s(4) + s(3)$$

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

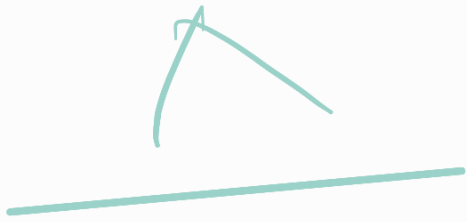
3 ②



2 1



$$f(3, 0)$$



Sum: 0

$$\text{sum} + f(n-1, \text{sum})$$

$$2, 0$$

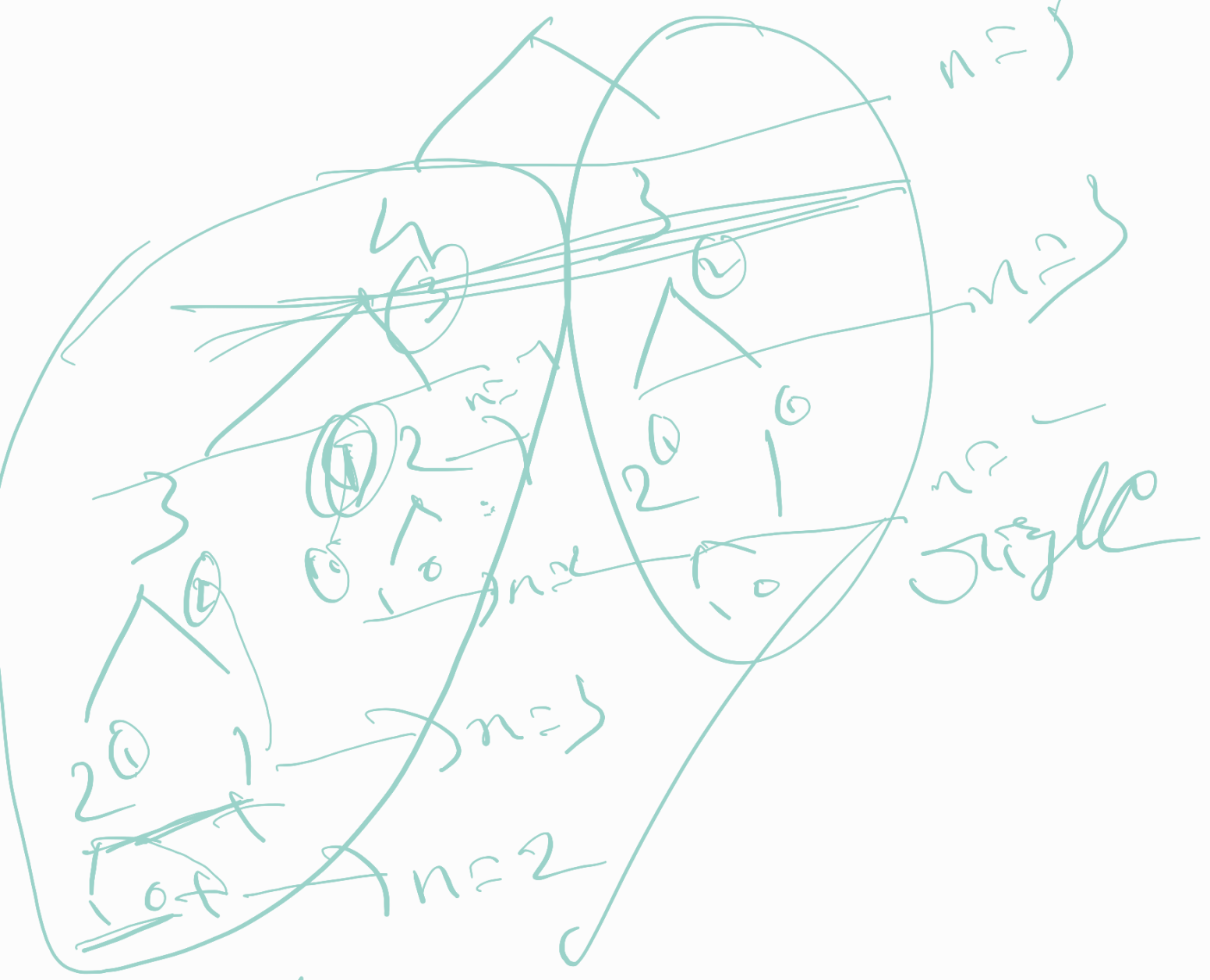
$$n=7$$





$n=5$

$n=5$



left

right

