ABC

- $i=0$ { ABC, BAC, CBA }
- $i=1$ { BAC, ABC, ACB } { ABC, BAC, BCA } { BCA, CBA, CAB }

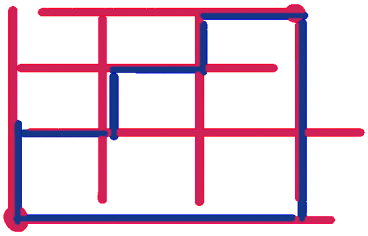
$\frac{N}{2}$

+1 +1 +1 -1 -1 -1

+1 -1 +1 +1 -1 -1

$x \le p < 2x$ DIO

N par = $2x \cdot D + 2y \cdot O$



DD..D OOOO

x y

$\frac{(x+y)!}{x!\,y!}$

$x+y=N$

$N! \left(1 - \frac{1}{2!} + \frac{1}{3!} - \frac{1}{4!} + \dots\right)$

$\left[\frac{N!}{e}\right]$ $\frac{2}{2!} = 0, \dots$

1

$\frac{\frac{N!}{x!y!}}{N!} = \frac{1}{x!y!}$

BA

$$D_n = n! \cdot \left[\frac{1}{0!} - \frac{1}{1!} + \frac{1}{2!} - \frac{1}{3!} + \dots + \frac{(-1)^n}{n!}\right]$$

$D_n = \frac{n!}{e}$

PIFF

$i = n$: fib(n) = fib(n-1) + f(n-2)

$i = n+1$:

D x · D DDA . . .
A y
I z

$\hookrightarrow x+y+z = n$

$(x, y, z) \in \mathbb{N}$

$\hookrightarrow$ x=y : $2x + z = \tilde{n} = \dfrac{\frac{(n+1)!}{n!}}{2} = \dfrac{n+1}{2}$

$\hookrightarrow$ x≠y => quero = tudo − $\bar{n}$ quer

$= \dfrac{(n+2)!}{n! \cdot z! \cdot 3!} - \dfrac{n+1}{2}$

$= \dfrac{(n+2)(n+1)}{x+y+z = 3} - \dfrac{n+1}{2}$

$\dfrac{n+1}{2}\left(\dfrac{n+1}{3!\,2!}\right) = \dfrac{(n+1)^2}{2}$

$2x + z = 3$
$x + z = 3$
0 + 3
~~1 + 2~~
2 + 1
3 + 0

Se $\bar{n}$ tiver igual .... : ok. ✓

Se estiver: então

$\dfrac{(n+1)^2}{2} = \dfrac{(n+1)^2}{n!} \Rightarrow \dfrac{n!}{1} = n+1$

n=2 ok
n>2 falso