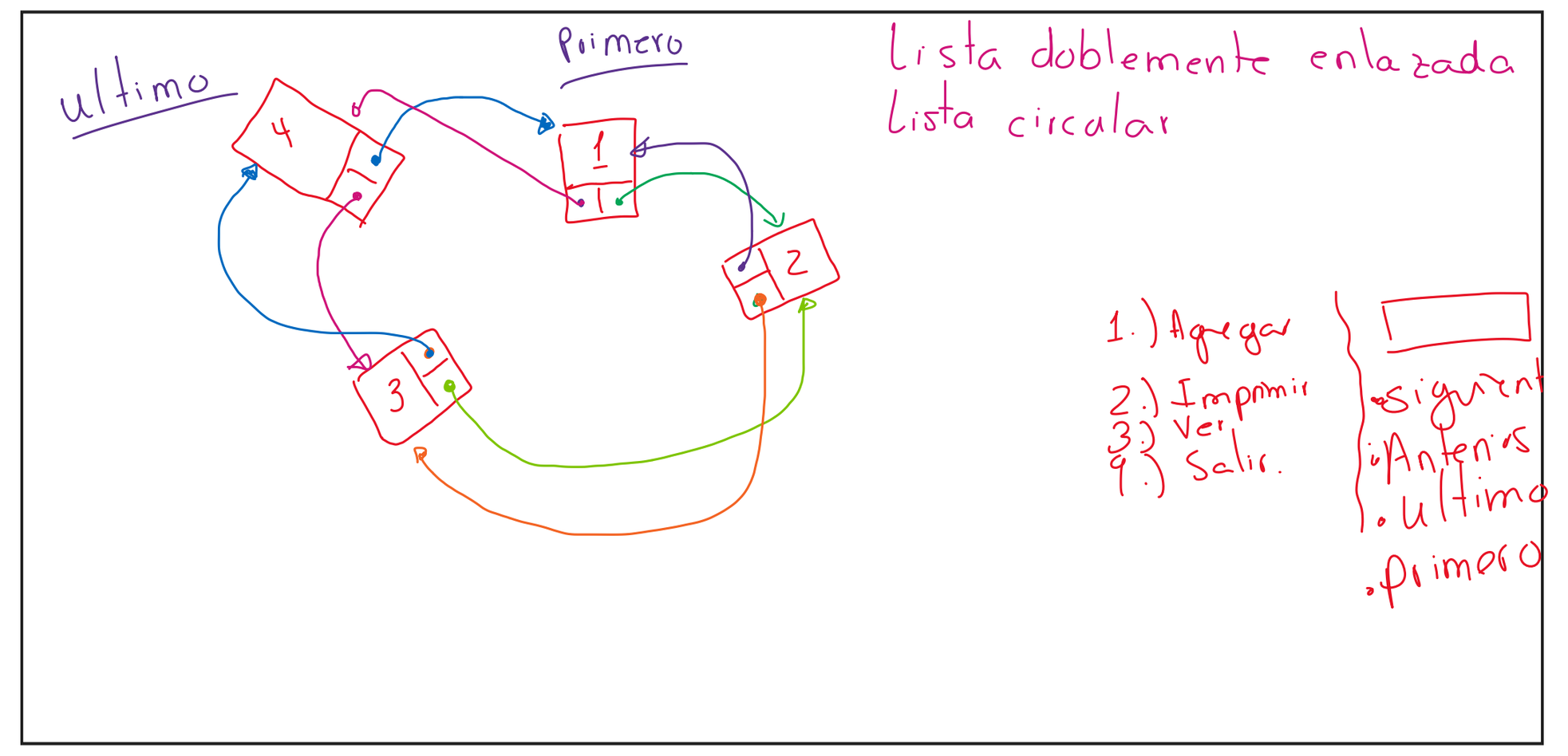

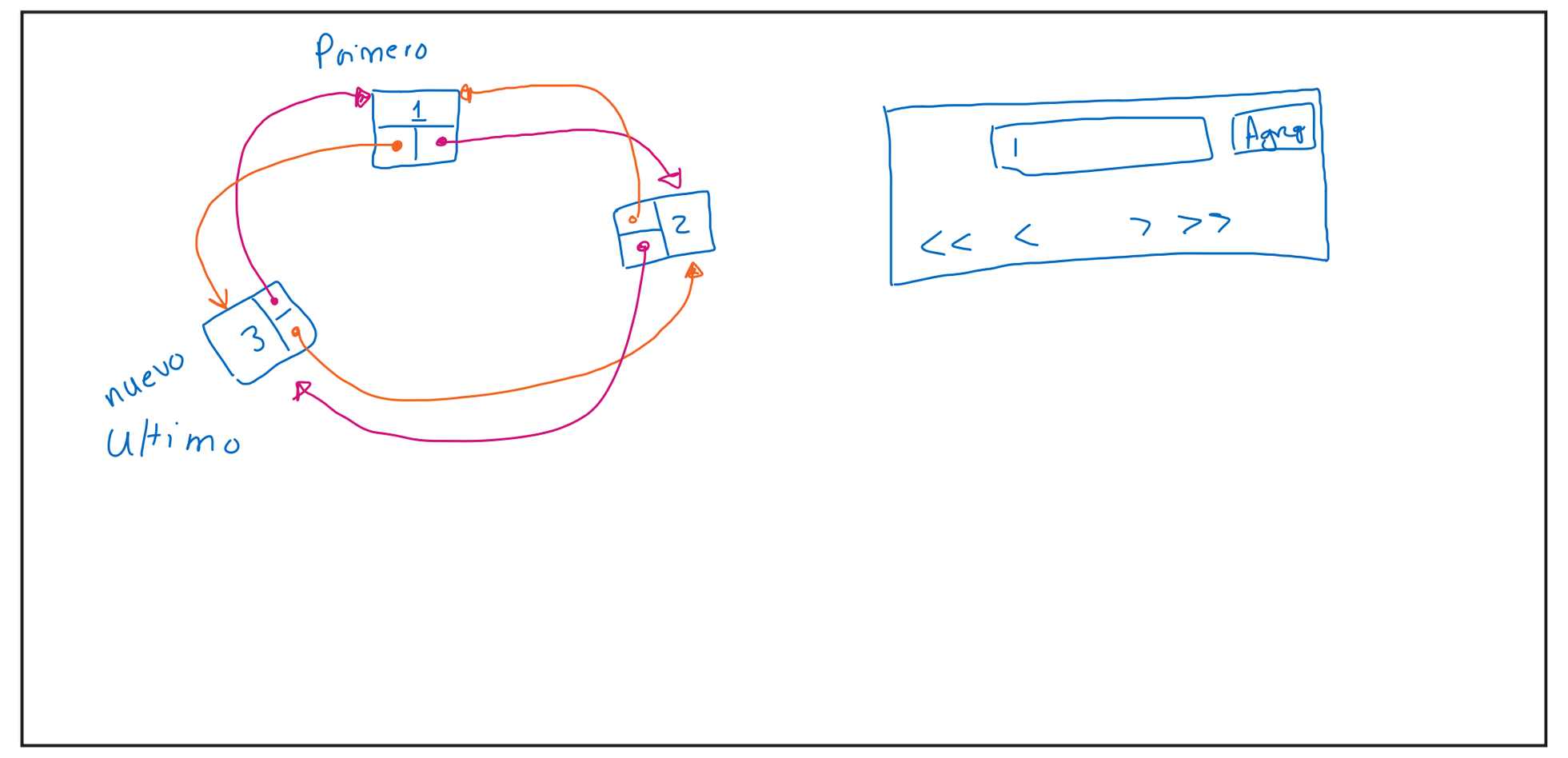

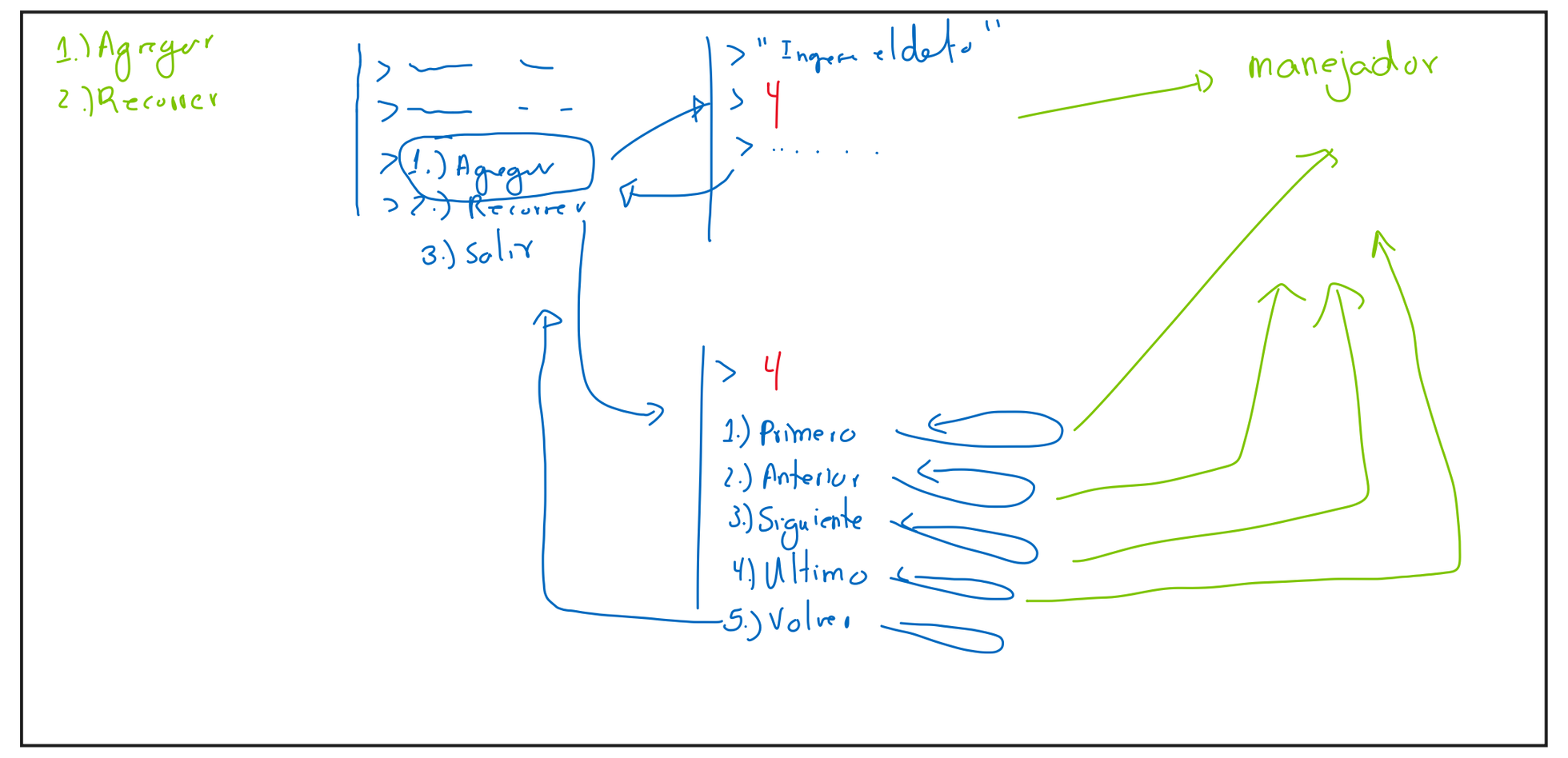

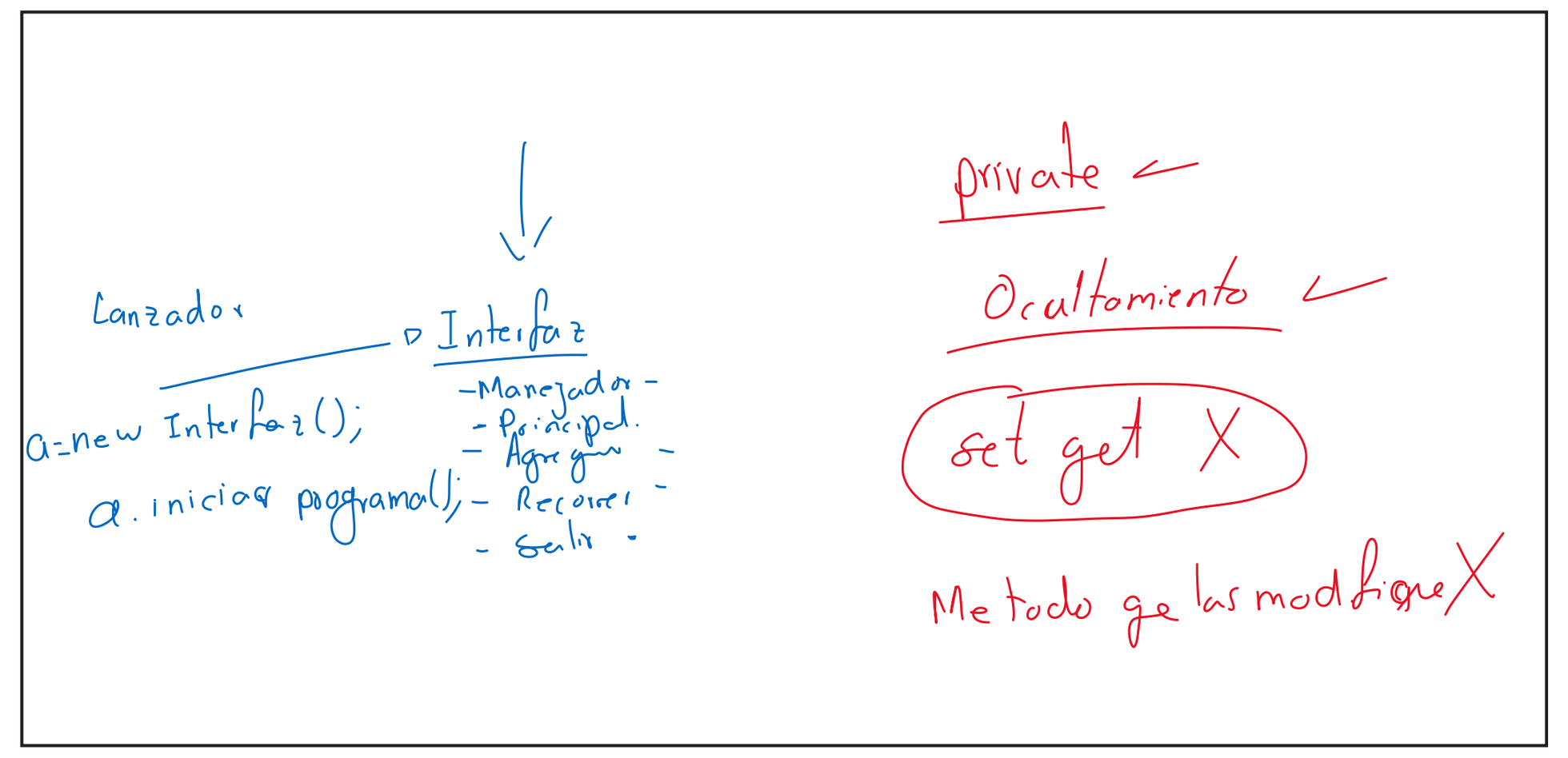

$k \quad k+1$

$$\frac{n(n+1)}{2} = \sum_{x=1}^{n} x$$

$$\frac{k(k+1)}{2} + (k+1) = \frac{(k+1)(k+2)}{2}$$

$$\frac{10(11)}{2} = 1+2+3+4+5+6+7+8+9+10$$

$$\frac{4(5)}{2} = 1+2+3+4$$

100

1000

1'000.000

* Collatz

$$a_0 \begin{cases} impar = 3a_0+1 \\ par = a_0/2 \end{cases} \quad a_1 \begin{cases} impar = 3 * a_1 + 1 \\ par = a_1/2 \end{cases} \quad a_2 \ldots\ldots$$

$$a_n = 1$$

7 -> 22 -> 11 -> 34 — 17 -> 52 -> 26 — 13 -> 40 — 20 — 10 — 5 — 16 — 8 — 4 — 2 — 1