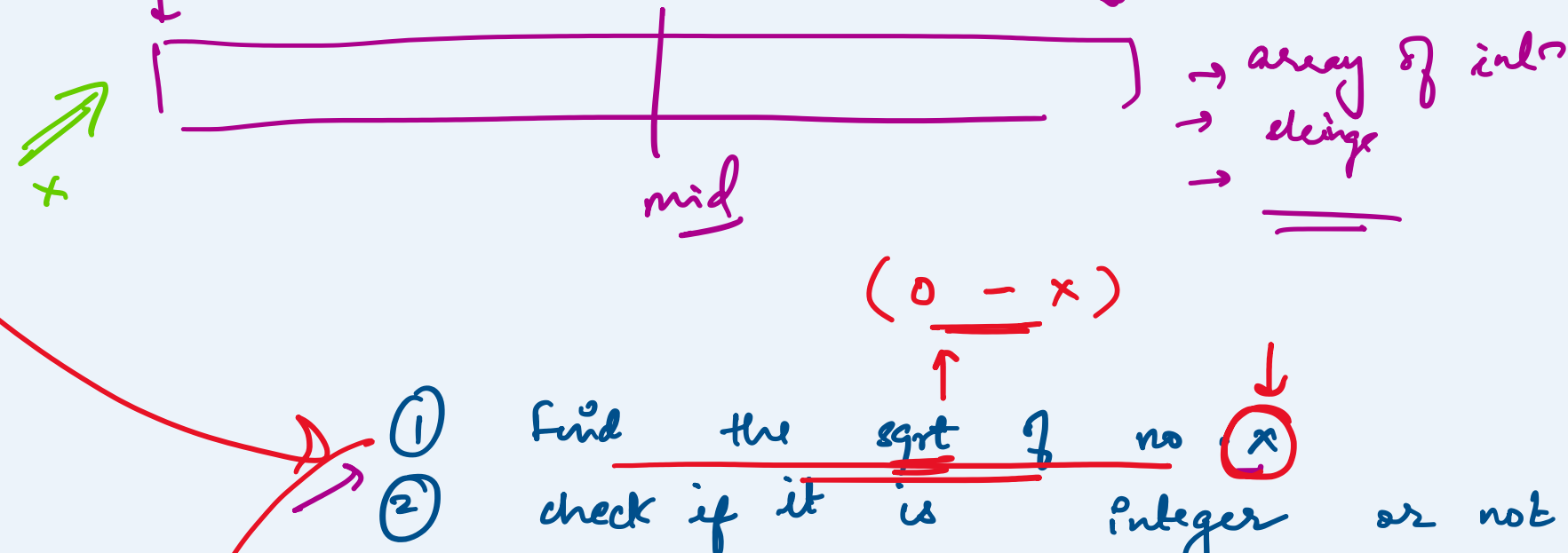


Q. Given a value x , tell if x is a square of an integer or not.

Eg: 16 → true
Eg: 20 → false

$\log(x)$ Binary search on answer

* You are not allowed to use sqrt functions.



① find the sqrt of x
② check if it is integer or not.

low → 0 high → x
Range → (0 → x)
monotonic

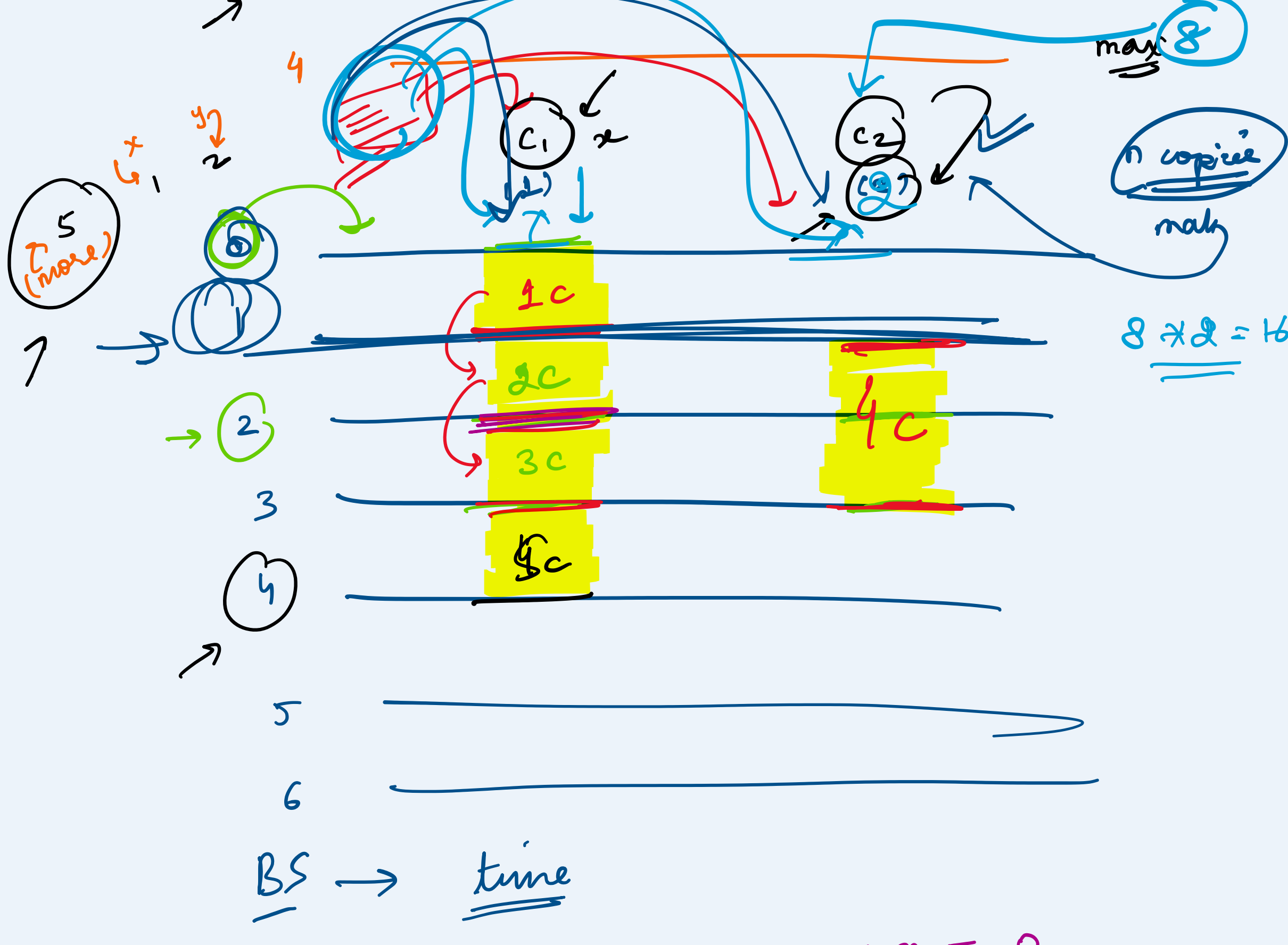
(*)

Binary search over the range [0 → x]



- low = 4 high = 5
 - mid → $0 + x = \frac{4+5}{2} = 4.5 \approx 4$ good (func)
 - mid value → good or not.
- mid * mid = x
 $\text{good}(4) \rightarrow 4 * 4 \leq x$

1 copy
need



BS → time

- find range.
min → 0
max → Math.max(x, y) ≠ n
- 0 Math.max(x, y) ≠ n

