Advanced Balanced Search Tree

Range Query

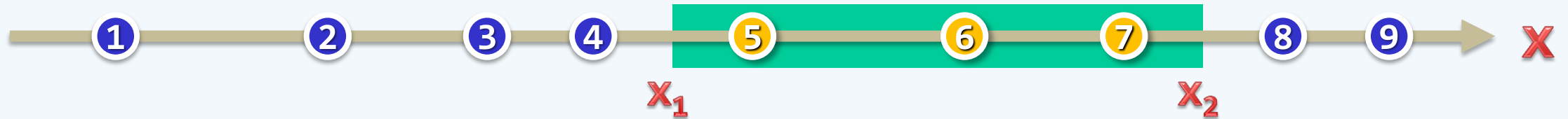## Brute Force

θ8-D2

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When all else fails, try brute-force.

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❖ For each point p of P, test if p ∈ $(x_1, x_2]$

❖ Thus each query can be answered in $\boxed{\mathscr{O}(n)}$ time

❖ Can we do it faster?

It seems we can't, for ...

❖ In the worst case,

the interval contains up to $O(n)$ points,

which need $O(n)$ time to enumerate

x_1 x_2

❖ However, how if we

- ignore the time for enumerating and

- count only the searching time?