



Q

Saad \longrightarrow 5 Secs (5 GHz)

Vibhuti \longrightarrow 10 Secs (2.5 GHz)

Who wrote better Algo?

We can't conclude Anything

1 GHz \Rightarrow 10^9 ops per Second

* Efficiency / TC complexity \Rightarrow Num-ops

Algo A \Rightarrow 100 ops \checkmark

Algo B \Rightarrow 200 ops

Big O (Asymptotic TC)

\Rightarrow Measure TC as Trend of Equation
of Num-Ops

Big O

① Take only the term with Highest degree

$$n^2 + n + c \Rightarrow O(n^2)$$

\downarrow
Quadratic

② Ignore coefficient and constant

$$\underbrace{5n^3}_{\checkmark} + \underbrace{3n^2}_X + \underbrace{2n^2}_X + \underbrace{100n}_X + \underbrace{c}_X \Rightarrow O(n^3)$$