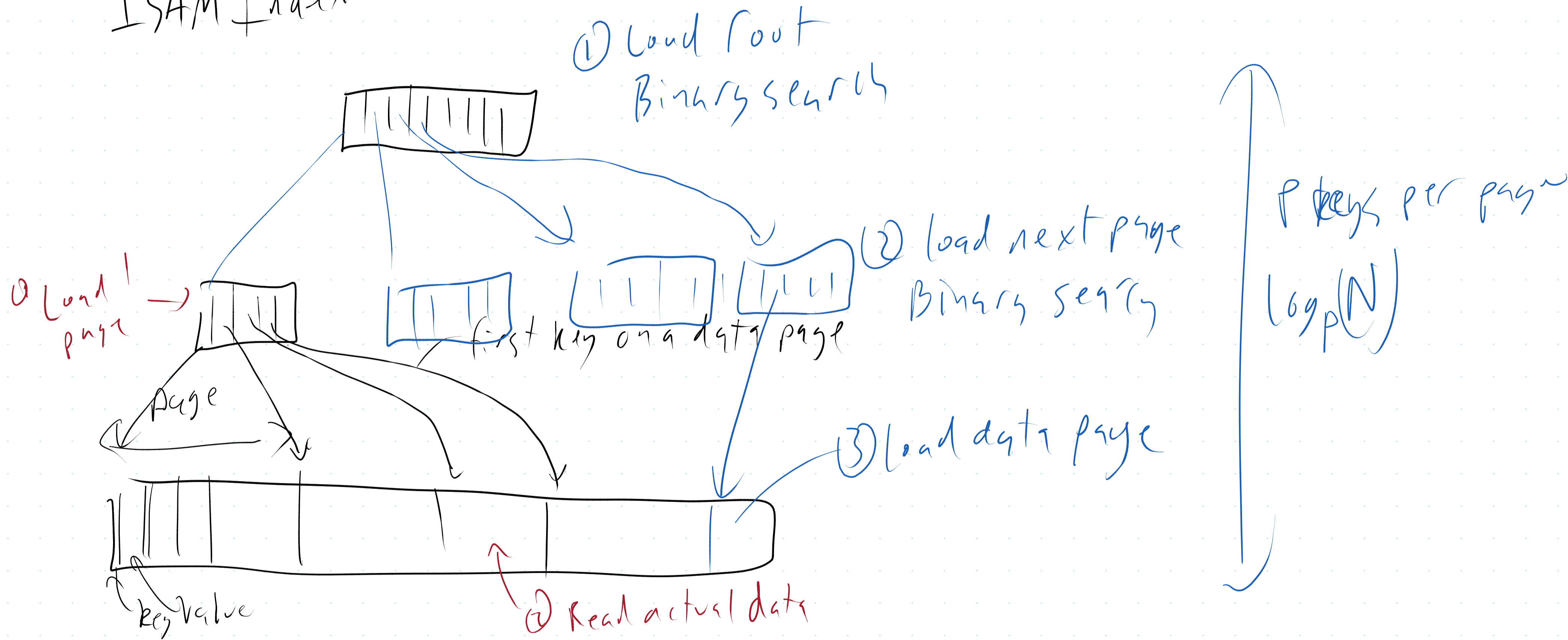


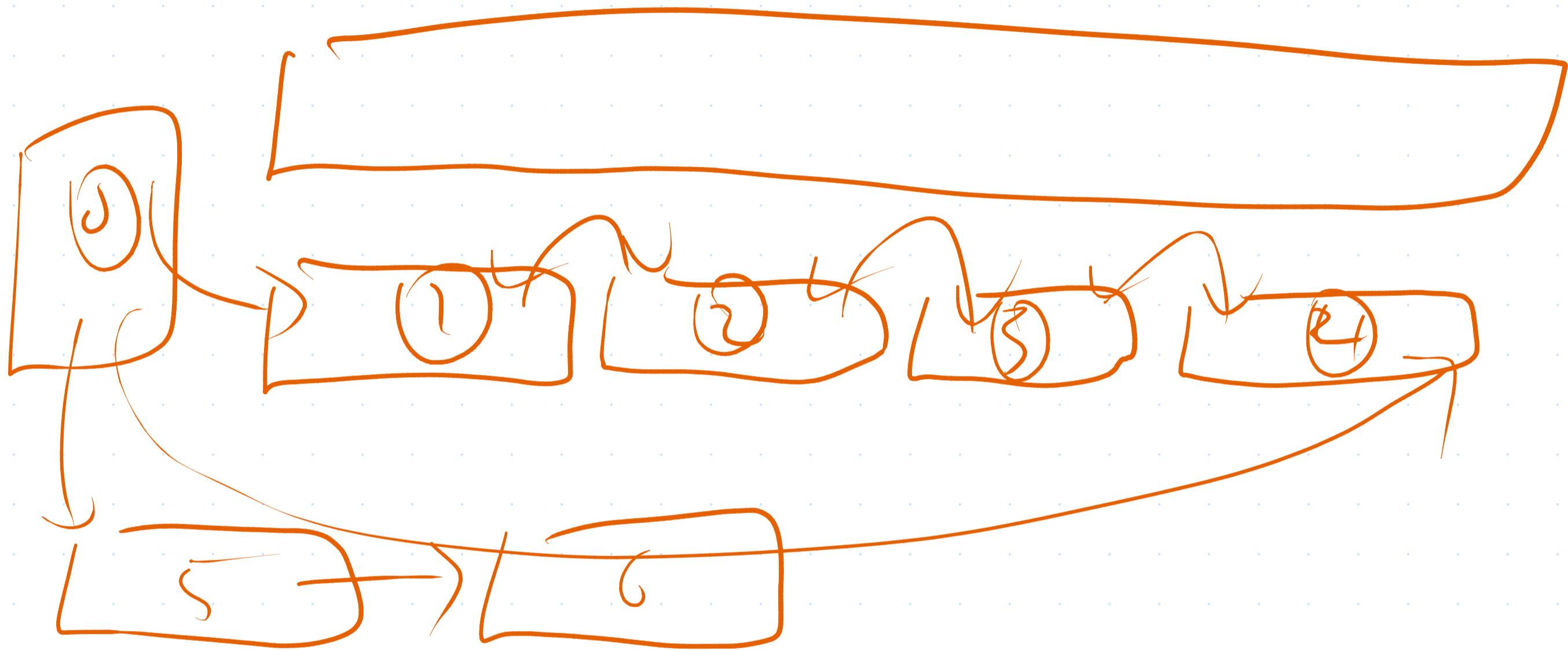
- One Pass Algorithms

- Buffer Data

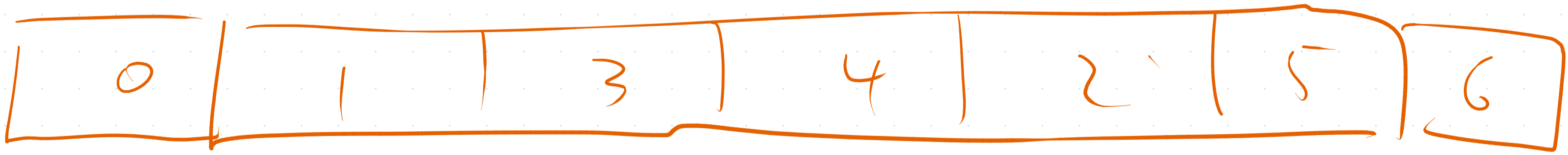
- Caching

ISAM Index





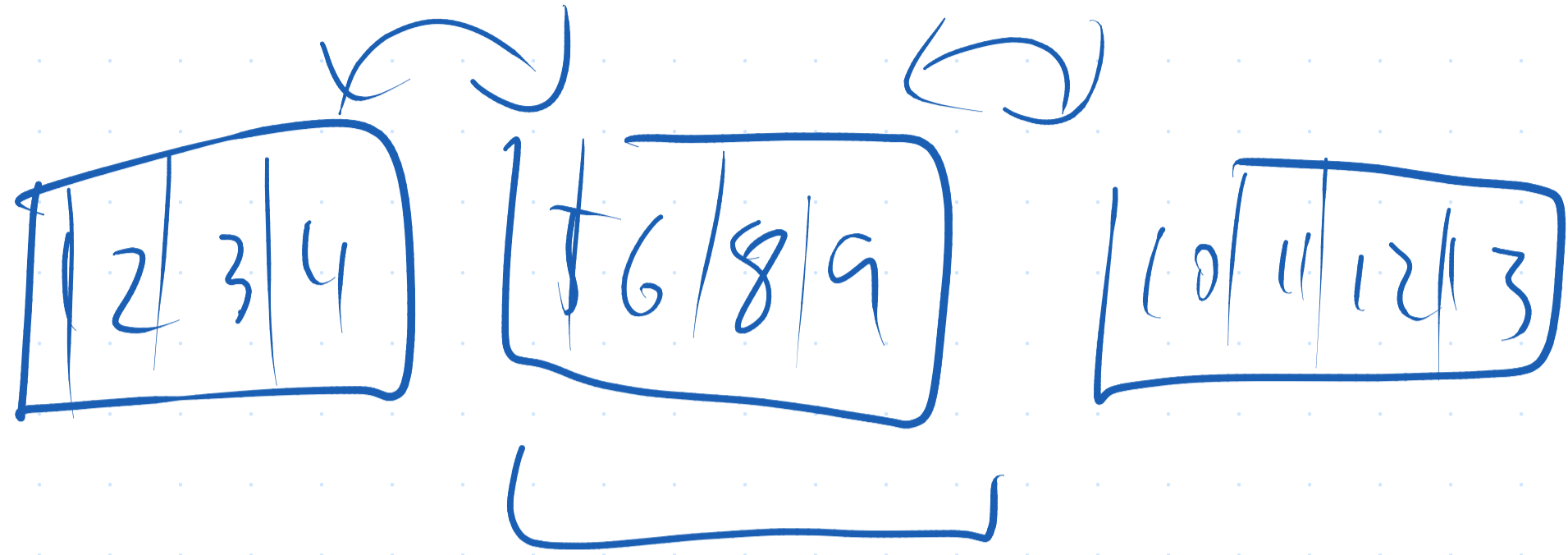
Data Pages
Free Pages



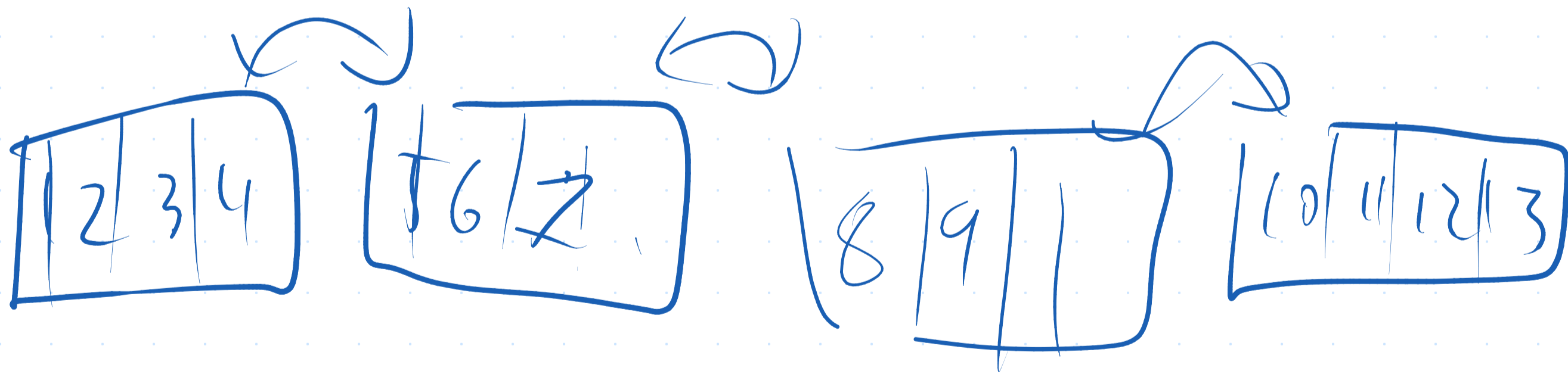
$$\sum_{i=0}^{\log_p N} \log_2 p = O(\log_2 p \log_p N)$$

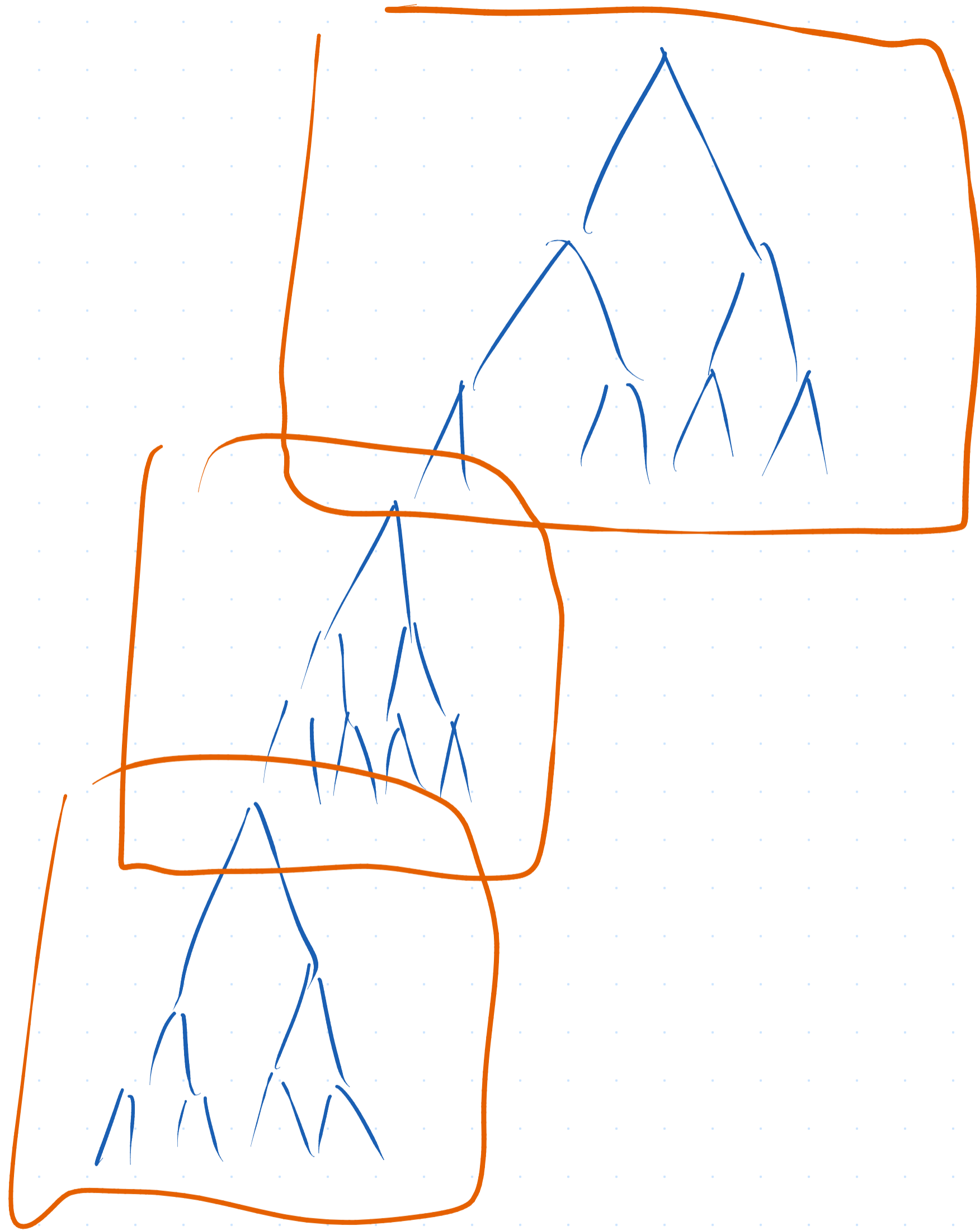
$$\log_p N = \frac{\log_2 N}{\log_2 p}$$

$$O(\log_2 N)$$

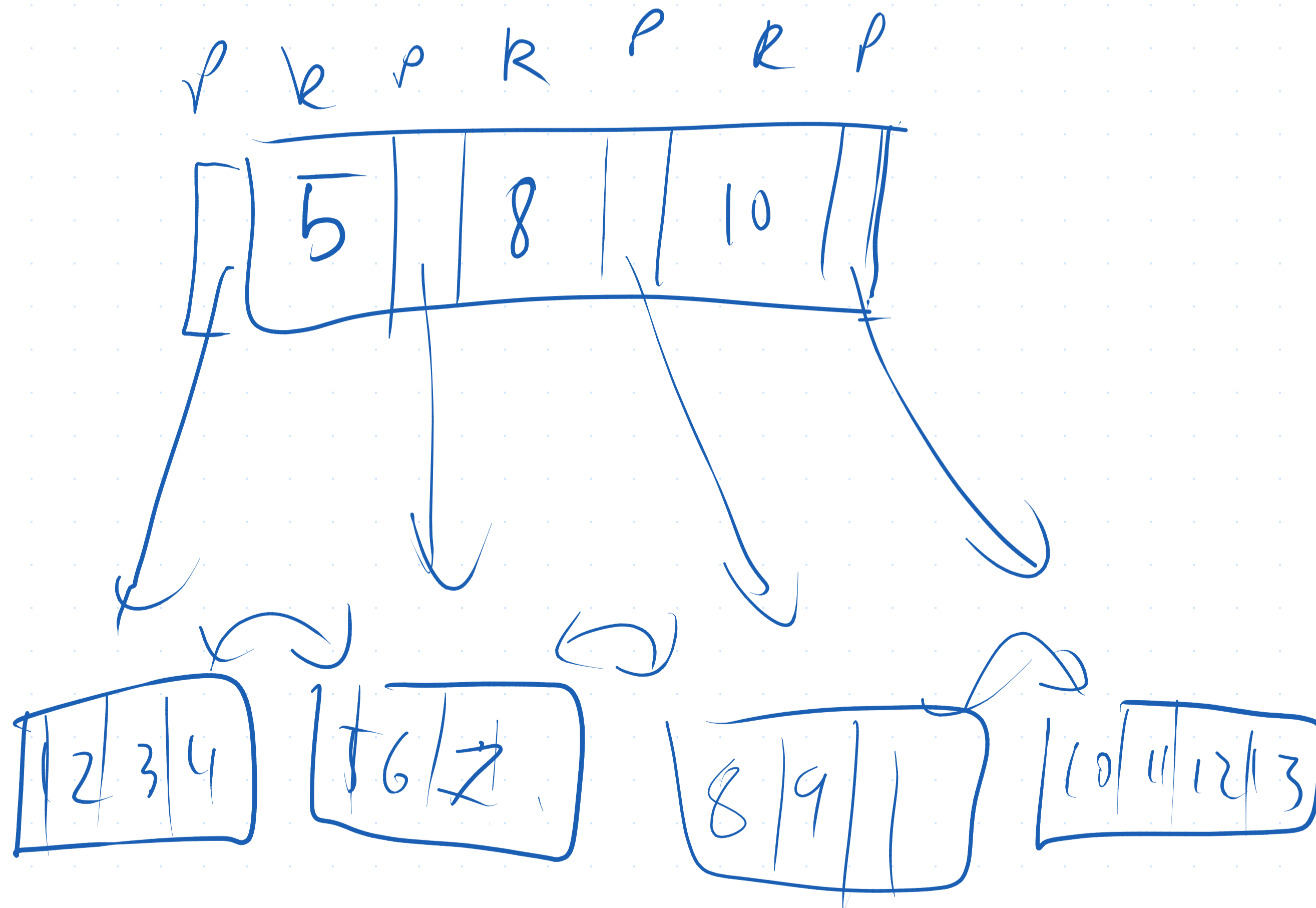


Insert 7

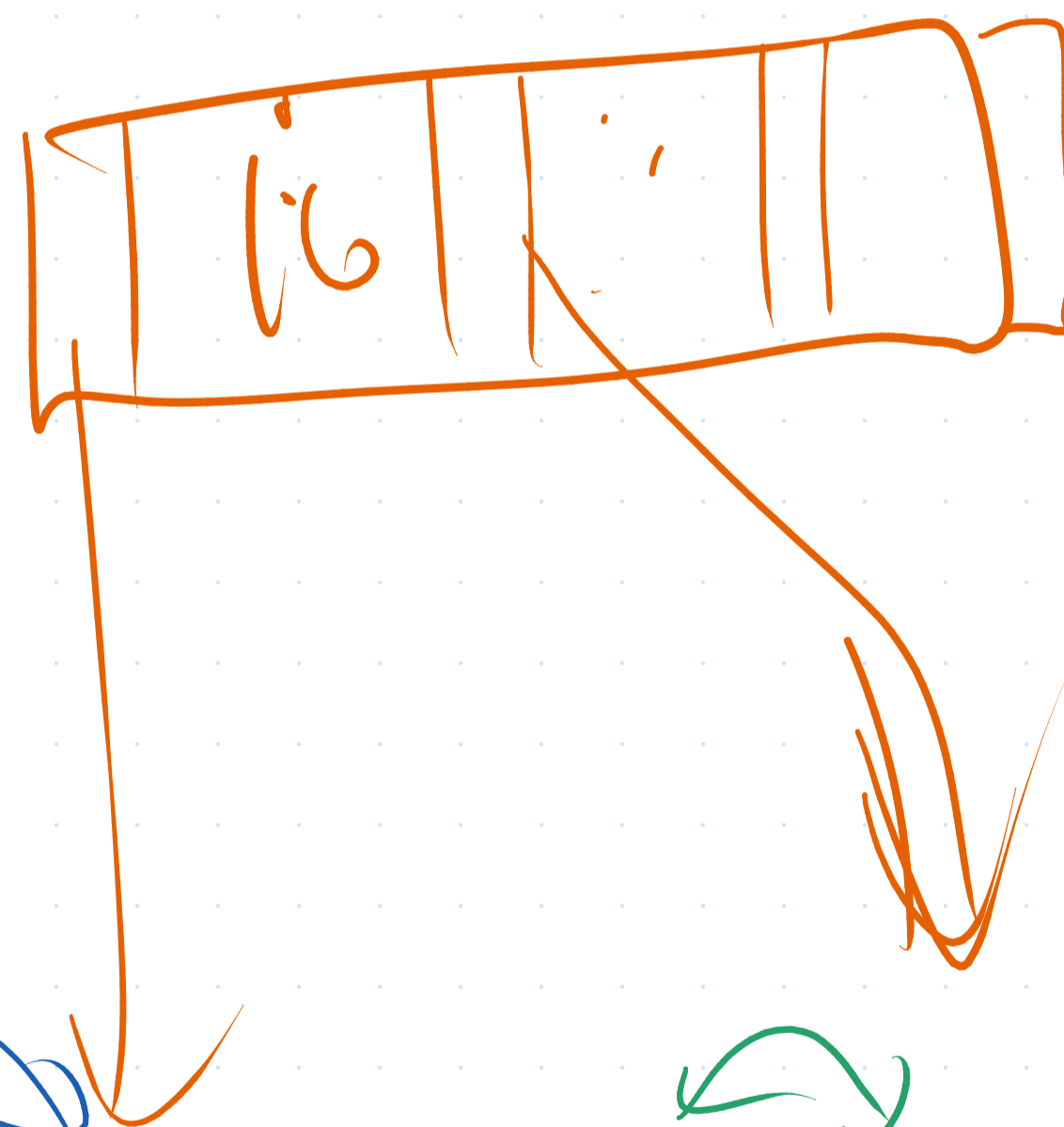
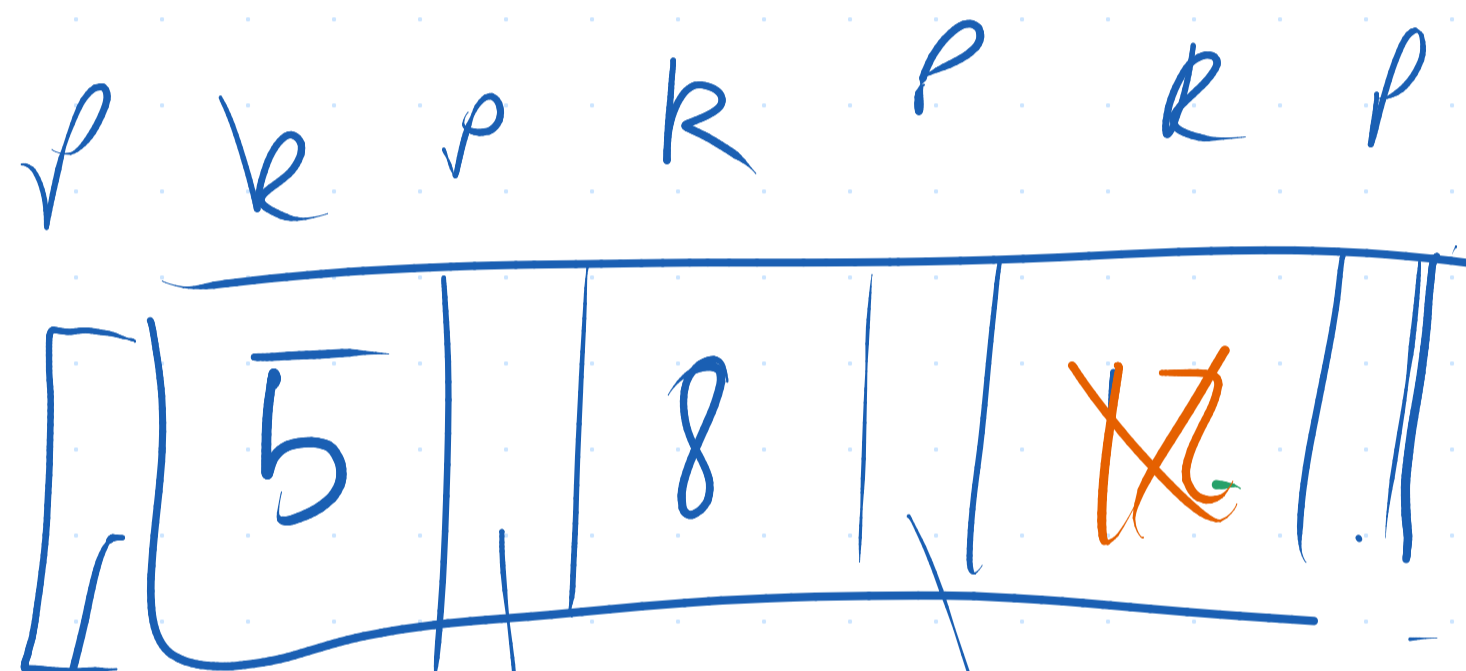
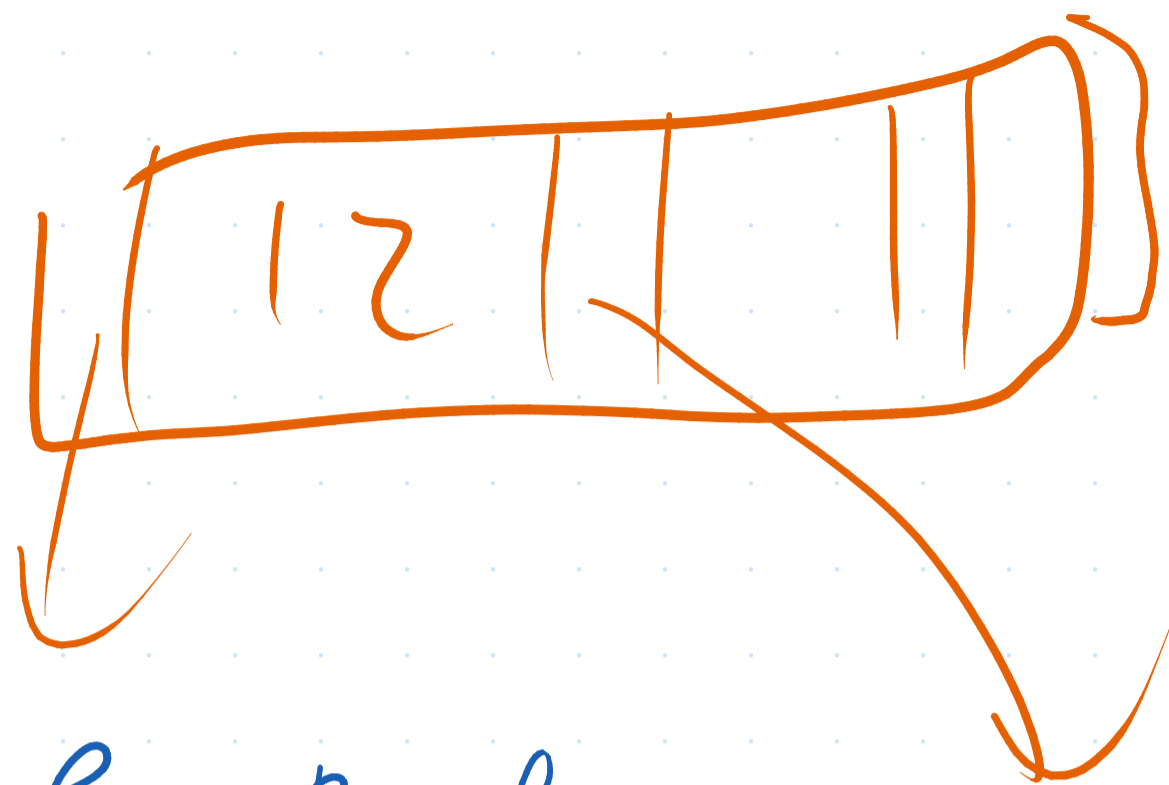




$$P = 4$$



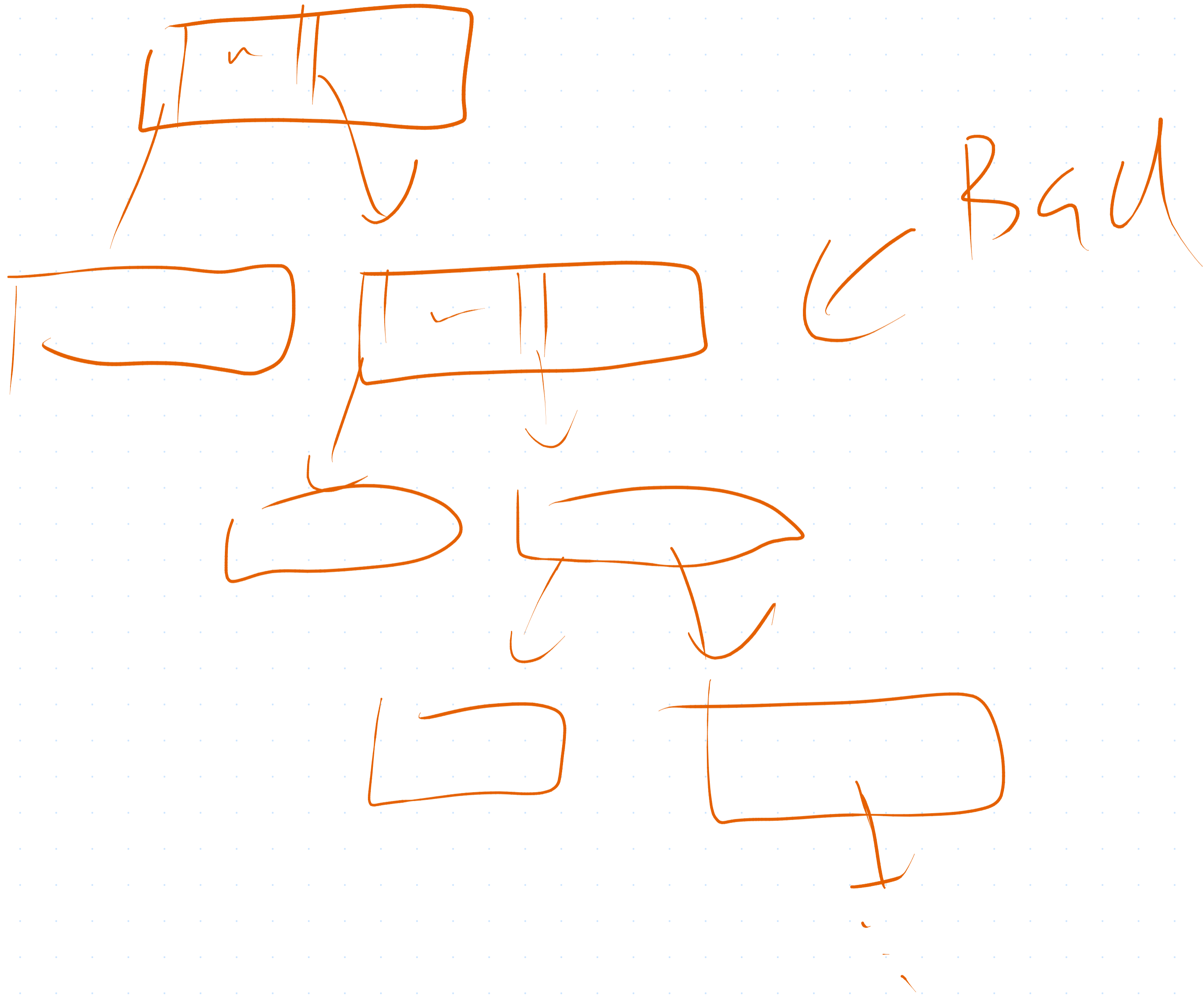
Insert 14
Insert 16



Ideally

S_{pN}

$v = 4$ in
example



Want

- All leaf nodes stay at
consistent depths

- 50% Fill rate for data
& directory pages

↳ B+ Tree