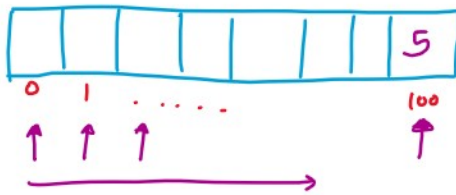


Binary Search 01

07 February 2025 08:47

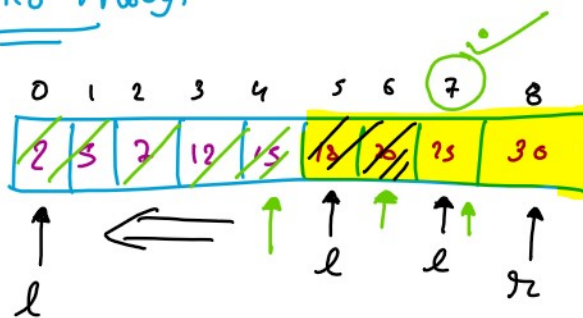
Arr \Rightarrow



key = 5

Ans

\Rightarrow ① Sorted Array.



Working

key = 25

15 > 25

or

15 < 25

20 > 25

or

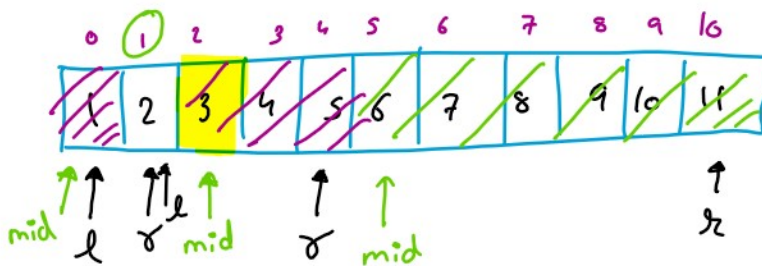
20 < 25

9 Elements

$$\frac{8+0}{2} = \boxed{4}$$

$$\frac{5+8}{2} = 6$$

$$\frac{7+8}{2} = 7$$



key = 2

6 > 2 or 6 < 2

3 > 2 or 3 < 2

...

$$mid = \frac{l+r}{2} = \frac{0+10}{2} = 5$$

$$mid = \frac{l+r}{2} = \frac{4+0}{2} = 2$$

$$mid = \frac{l+r}{2} = \frac{0+1}{2} = 0$$

$$mid = 1+1 = 1$$

$$5 > 1 \quad \text{or} \quad 5 > 2$$

$$1 > 2 \quad \text{or} \quad 1 < 2$$

$$\text{mid} = \frac{1+1}{2} = \frac{2}{2} = 1$$

