

$$O(QN)$$

$$5 \times 10^4 \times 10^5$$

$$\approx 5 \times 10^9$$

$$\approx 50s$$

segment  $\rightarrow L, R$   
0, 6

1, 4, 6, 8, 10 (array)

[2, 6]  $\rightarrow [L, R]$

$$[-\infty, 2-1] = 1$$

$$[-\infty, 6] = 3$$

$$[-\infty, 6]$$

1, 4, 6, 8, 10  
2

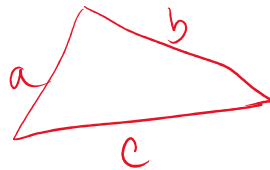
$$UB(6) = 3 \rightarrow 2$$

$$UB(2-1) = 1$$

$$LB(2) = 1$$

$$UB(x-1) = LB(x)$$

1 2 5



1+2 3

1 2 (3) (4) 

5	6
0	1

$a_i$   $a_j$   $a_3$   $a_4$   $a_5$   $a_6$   
 $< 5$

$$UB(5-1)$$

$$5 \% 3 \text{ (crossed out) } \parallel \rightarrow 7$$

$\underbrace{\quad}_5$

[j+1, n-1]  
 $< 5$

$\left. \begin{array}{l} 1 \rightarrow 1 \\ 12 \rightarrow 0 \\ \overline{123} \rightarrow 0 \end{array} \right\}$   
 $\overline{1234} \rightarrow 17$

$$3 \% 3$$

$$N = 6$$

$$\lceil \frac{N}{3} \rceil$$

$$\lceil \frac{4}{3} \rceil = 2$$

$$\lceil \frac{5}{3} \rceil = 2$$

$$\frac{6}{3} = 2 \quad \lceil \frac{6}{3} \rceil = 2$$

$$\left. \begin{array}{l} \overline{1234} \rightarrow 1 \\ \overline{12345} \rightarrow 0 \\ \overline{123456} \rightarrow 0 \end{array} \right\}$$

$$6-2$$

$$\frac{N}{3} - \lfloor \frac{N}{3} \rfloor$$

$$N=5$$

$$N - \frac{N+2}{3}$$

$$= 5 -$$

$$\lceil \frac{N}{d} \rceil = \frac{N+d-1}{d}$$

$$= \frac{N+3-1}{3} = \frac{N+2}{3}$$

$$[1, N] \rightarrow N - \left( \frac{N+2}{3} \right)$$

$$[P, Q] \rightarrow [1, Q] - [1, P-1]$$

$$\text{long long } f(\text{int } N)$$

$$\{ \text{return } N - (N+2/3);$$

$$Q - \frac{Q+2}{3} - P$$

$$f(Q) - f(P-1)$$

$$O(1)$$