

There is an array a of n integers. You need to process requests in $O(\log n)$ time:

- 2.1. assign the value x to all elements of the segment,
change the elements of the segment $a_i = -a_i$,
find the sum on the segment,
find the maximum on the segment
- 2.2. assign the value x to all elements of the segment,
change the elements of the segment $a_i = -a_i$,
find the segment with the maximum sum
- 2.3. assign the value x to all elements of the segment,
add x to all elements of the segment,
find the sum on the segment
- 2.4. change the elements of the segment $a_i = \max(a_i, x)$,
find the maximum on the segment
- 2.5. change the elements of the segment $a_i = \max(a_i, x)$,
change the elements of the segment $a_i = \min(a_i, x)$,
find the value of a_i .
- 2.6. assign the value x to all elements of the segment,
find the longest segment of equal numbers
- 2.7. change the elements of the segment $a_i = a_i + x \cdot i + y$,
find the sum on the segment
- 2.8. assign the values $a_i = x \cdot i + y$ to the elements of the segment,
find the maximum on the segment
- 2.9. assign the values $a_i = x \cdot i + y$ to the elements of the segment,
find the GCD of numbers on the segment