$1NKQKQK1 \leq$
$N \leq$
10^{18}
$1NNN =$
$10^{18}QX \leq$
$QQQ[L, R][L, R] =$
$[1, N]M =$
$\lfloor \frac{L+R}{2} \rfloor [L, M-$
$1](M+$
$1, R)1\log_2(N) =$
$O(\log N)O(n)O(\log N)$
$0 \leq$
$p, q \leq$
$20-20 \leq$
$q, s, t \leq$
0

$$f(x) = pe^{-x}+q\sin(x)+r\cos(x)+s\tan(x)+tx^2+u = 0$$

$0 \leq$
$x \leq$
1
$O(1)O(1)$
$|f(x)| <$
10^{-9}
0
$LR(L, R) =$
$(0, 1)$
$f(x)[0, 1]$
$f(x) = ax^2+bx+c\ (a > 0)$

$a >$
$0Xf(X)f(x)$
$x =$
$Kx =$
$Qf(K)-$
$f(Q)0$
$[L, R]A =$
$\lfloor \frac{2L+R}{3} \rfloor B =$
$\lfloor \frac{L+2R}{3} \rfloor$
$f(A) >$
$f(B)[L, A][A, R]$
$f(A) =$
$f(B)[L, A][B, R][A, B]$
$f(A) <$
$f(B)[B, R][L, B]$
$\frac{2}{3}\log_{\frac{3}{2}} N =$
$O(\log N)$
$A =$
$\lfloor \frac{2L+R}{3} \rfloor B =$
$\lfloor \frac{L+2R}{3} \rfloor [L, R]A =$
$\lfloor \frac{L+R}{2} \rfloor B =$
$\lfloor \frac{L+R}{2} \rfloor +$
1
$_b ound(arr, arr+$
$5, 5) <<$
$endl; cout <<$
$*lower_b ound(arr, arr+$
$5, 6) <<$
$endl; cout <<$
$*upper_b ound(arr, arr+$
$5, 5) <<$
$endl; cout <<$
$*upper_b ound(arr, arr+$
$5, 6) <<$
$endl;$
$1Ni1MKRMR$
$n1na_ikx_1, x_2, x_3, \ldots x_k ia_{x_i}+$
$kx_iS1 \leq$
$n, a_i \leq$
$10^5 1 \leq$
$S \leq$
10^9
0
n
$n \leq$
10^7
$O(\varphi^n)$
$\phi =$
$\frac{1+\sqrt{5}}{2}$
$f(10^7)$
10^{2*10^6}