Name: Vishal Raj Uid: 23BCS10023

Given 3 integers n, a & b return nth magical no, since the no. may be very large return 1e9+7%.
A +ve integer is magical if it is divisible by either a or b.

Test cases $n=1, a=2, b=3$ $n=4, a=2, b=3$
ans = 2 ans = 6

Constraints: $n \le 1e9$ $a \le b \le 1e4$

Ans → We will use binary search as the search space as the val. of n is too big to achieve O(logn) time complexity.

Start of binary search range
left = gcd(a,b) * n

Ending of binary search range
right = min(a,b) * n

Now, while (left <= right) we find
mid = (right - left)/2 + left
a = min(mid % a, mid % b)
k = (mid - a)
curr = k/a + k/b - k/lcm(a,b);
if (curr == n) return curr % (1e9+7);
else if (curr < n) left = mid+1;
else right = mid-1;
}