

As homework:

1. Write a program to find the number of pairs in an array whose sum is equal to k. $N \leq 10^6$ and $A[i] \leq 10^6$
2. Study modulus operator properties and Power function using modular exponentiation.
3. Study Gcd function.

Some good blogs:

1. <https://www.hackerearth.com/practice/basic-programming/input-output/basics-of-input-output/tutorial/>
2. <https://www.hackerearth.com/practice/notes/number-theory-1/>

Practice Problems on online judges:

1. <http://www.spoj.com/problems/MERGSORT/>
2. <http://www.spoj.com/problems/INVCNT/> (hint: do using merge sort algo)
3. <https://www.codechef.com/problems/MRGSRT>