Algorithm Cheat sheet

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1. **Number Theory**
   * 1. **Prime Number**
        + 1. Sieve Algorithm 1

**1. Seive Algorithm for generating prime number from 0 to n**

* Take a boolean array

primeCheck[ n+1]

* Set value of all indices true

setAllElements(prime)=true

* Mark the prime numbers

for i=2 ; i\*i<=n ; i++

if (primeCheck[n+1])

for j=i\*i ; j<=n ; j+=I

//mark all numbers which are multiple of i

primeCheck[j]=false;

* Now we can use a new list/array/vector to store the prime numbers by checking primeCheck array by checking the value of indices

**Note: use bitset in cpp**