

ALL DIVISORS OF A NUMBER

★ In this problem, we are given a number and our job is to return an array containing all divisors of that number in any order.

Bruteforce Solution is to iterate from 1 to N and just checking whichever number divides it. This can be optimized to only loop from 1 to \sqrt{N} , as no divisor will be left if we just also check i and $\frac{N}{i}$.

Pseudocode :

```
printAllDivisors (N) {  
    ans = []  
    for (i = 1 →  $\sqrt{N}$ ) {  
        if ( $N \% i == 0$ ) {  
            ans.add(i)  
            if ( $N/i \neq i$ ) {  
                ans.add( $N/i$ )  
            }  
        }  
    }  
    return ans  
}
```