

Topics to discuss

- Prime or not
- Its time & space complexity.

Prime Number

A number greater than 1 that can not exactly divided by any other number other than 1 and itself.

eg: 2, 3, 5, 7, 11, 13, 17, 19 etc

Our Task

① I/p : 19

O/p : True

② I/p : 1

O/p : False

```

static boolean solution (int n) {
    if (n <= 1) return false;
    for (int i = 2; i < n; i++) {
        if (n % i == 0)
            return false;
    }
    return true;
}

```

$n = 18$

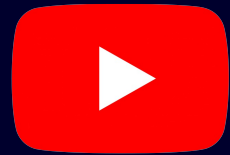
i	$\frac{n}{i}$
1	18
2	9
3	6
6	3
9	2
18	1

1st. $i \leq \frac{n}{i}$
 $i \times i \leq n$
 $i \leq \sqrt{n}$

2nd.

```
static boolean solution2 (int n) {  
    if (n <= 1) return false;  
    for (int i = 2 ; i * i <= n; i++) {  
        if (n % i == 0)  
            return false;  
    }  
    return true;  
}
```

Follow Now



Start Practicing



i._am._arfin

#DSAWithArfin



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