

```

for (int i = n; i >= 1; i--) {
    S.o.pln(i);
}

```

## Day-4

More problems  $\Rightarrow$

1) Print even no's from 1 to N

```
int n;
```

```
for (int i = 2; i <= n; i++) {
```

```
    if (i % 2 == 0) {
```

```
        S.o.pln(i);
```

```
    }
```

2) Print only those even no's from 1 to N that are divisible by 4 also

4 also

3) Print table of given no

Eg: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40



Q. Given a no  $N$ , iterate  $i=1$  to  $N$ :

Print "FizzBuzz" if  $i$  is a multiple of both 3 & 5

Print "Fizz" if  $i$  is a multiple of 3 only

Print "Buzz" if  $i$  is a multiple of 5 only

Otherwise print value of  $i$

Q/P:

1	
2	Buzz
	11
Fizz	
4	Fizz
	13
Buzz	
Fizz	14
	FizzBuzz
7	
8	Fizz

Code  $\Rightarrow$

```
for (int i=1; i<=N; i++) {
    if (i%3==0)
        S.o.pln("Fizz");
    else if (i%5==0)
        S.o.pln("Buzz");
    else if (i%3==0 && i%5==0)
        S.o.pln("FizzBuzz");
    else
        S.o.pln(i);
}
```

Q. Given a positive no find the no of digits in that number

Eg: 7  $\rightarrow$  1  
 48  $\rightarrow$  2  
 5461  $\rightarrow$  4  
 200000  $\rightarrow$  5

71305  
 /10  $\downarrow$  1

7130

2  
 /10  $\rightarrow$  713

3  
 /10  $\rightarrow$  71

4  
 /10  $\rightarrow$  7

0  
 /10  $\rightarrow$  0

5  
 /10  $\rightarrow$  0

0

$\Rightarrow$  Break Statement:

break statement is a control flow statement used in programming lang to terminate the execution of a loop prematurely.

Eg: int  $x=3$ ;

for (int i=1; i<=N; i++) {

S.o.pln(i);

if (i==x)

break;

}

2) int sum=0; for (int i=1; i<=N; i++) {

sum = sum + i

if (sum > 3\*N)

break;

$\Rightarrow$  Continue Statement:

Continue statement is another control flow statement used within loops to skip the rest of the code inside the loop for the current iteration & move on to next iteration.

Eg: Print nothing if  $i$  is a multiple of 4

if (i%4==0)

continue;



```

class main {
    public static void main (String[] args) {
        int digits = 0;
        for (int num = N; num > 0; num /= 10) {
            digits++;
        }
        s.o.pln(digits);
    }
}

```

Q) Sum of digits

71305.  $(n \% 10) \rightarrow$  unique place digit of n  
 $n = n / 10$   
 sum = 0  
 sum = 5  
 sum = 8  
 sum = 16  
 sum = 9

71305

sum = 5  
 /10

7130 sum = 5

713 sum = 8

→ check for geeks sum of digits problem

Q) L = 5095

R = 5101

5095  $\Rightarrow$  19  
 5096  $\Rightarrow$  20  
 5097  $\Rightarrow$  21  
 5098  $\Rightarrow$  22  
 5099  $\Rightarrow$  23  
 5100  $\Rightarrow$  24  
 5101  $\Rightarrow$  25

```

for (int N = L; N <= R; N++) {
    // find & print sum of digits
    int sum = 0;
    for (num = N; num > 0; num /= 10) {
        int lastDigit = num % 10;
        sum += lastDigit;
    }
    s.o.pln(sum);
}

```

Q1 Given a no, check if it's a power of 2

num =  $2^k$   
 $2^1 \rightarrow 1$   
 $2^2 \rightarrow 2$   
 $2^3 \rightarrow 4$   
 $2^4 \rightarrow 8$   
 $2^5 \rightarrow 16$   
 $2^6 \rightarrow 32$   
 $2^7 \rightarrow 64$   
 $2^8 \rightarrow 128$   
 $2^9 \rightarrow 256$   
 $2^{10} \rightarrow 512$



```

while (n%2 == 0)
    n = n/2;
if (n == 1)
    s.o.pln("Yes");
else
    s.o.pln("No");

```

Day-5

0(1)

0(1)