

Assignment-9

%d

d%

11 (a)

```
int start = 24;  
int end = -6;
```

start > end
(24 - 18) = 6

```
while (start > end) {  
    System.out.printf ("%d, ", start);  
    start -= 6;
```

```
}
```

```
System.out.printf ("%d", end);
```

11 (b)

```
int start = -10;  
int end = 20
```

start < end
-5 + 10 = 5

```
while (start < end) {
```

```
    System.out.printf ("%d", start);
```

```
    start += 5;
```

```
}
```

```
System.out.printf ("%d", end);
```

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```
print("How many numbers? : ");
```

```
int N = sc.nextInt();
```

```
int sum = 0;
```

```
float avg = 0;
```

```
print("Input the %d numbers: /n", N);
```

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

```
    sum += sc.nextInt();
```

```
}
```

```
avg = (float) sum / (float) N;
```

```
print("The sum of %d no is : %d", N, sum);
```

```
print("The Average is : %f", avg);
```

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```
int num = 0;
```

```
int sqr = 0;
```

```
while (true) {
```

```
    print("Enter Number: ");
```

```
    num = sc.nextInt();
```

```
    if (num < 0)
```

```
        break;
```

```
    sqr = (num * num);
```

```
    print("%d ^ 2 = %d", num, sqr);
```

```
}
```

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```
print("Enter number :");  
int num = sc.nextInt();  
  
print("Divisors of %d\n", num);  
for (int i = 1; i <= num; i++) {  
    if (num % i == 0)  
        println(i);  
}
```

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```
print("Enter an integer:");  
int N = sc.nextInt();  
  
int pos = 0;  
int neg = 0;  
  
int num = 0;  
  
for (int i = 1; i <= N; i++) {  
    printf("Enter number %d: ", i);  
    num = sc.nextInt();  
    if (num >= 0)  
        pos++;  
    else if (num < 0)  
        neg++;  
}  
  
print("%d Non-negative Numbers", pos);  
print("%d Negative Numbers", neg);
```

```
printf("Enter number of terms:");
```

```
n = sc.nextInt(); // odd =  $(2n+1)$ 
```

```
int sum = 0;
```

```
println("The odd numbers are:");
```

```
for (int i = 0; i < n; i++) {
```

```
    int oddNum =  $(2*i + 1)$ ;
```

```
    printf("%d\n", oddNum);
```

```
    sum += oddNum;
```

```
}
```

```
printf("The sum of odd Natural Numbers up to %d terms  
is: %d", n, sum);
```

```
int sum = 0;
```

```
for (int i = 0; i < 10; i++) {
```

```
    printf("Enter number: ");
```

```
    int n = sc.nextInt();
```

```
    sum += n;
```

```
    printf("Sum = %d", sum);
```

```
}
```

```
print("Enter number:");
```

```
int n = sc.nextInt();
```

```
for (int i=1; i<=n; i++) {  
    if (i%5==0 && i%3!=0) {  
        println(i);  
    }  
}
```

```
}
```

```
print("Enter number:");
```

```
int n = sc.nextInt();
```

```
int digit = 0;
```

```
while (true) {
```

```
    if (n==0)
```

```
        break;
```

```
    else if (n!=0) {
```

```
        n /= 10; // n = n/10
```

```
        digit++;
```

```
    }
```

```
}
```

```
println("Output: %d\n", digit);
```

```
printf("Enter number :");
```

```
int num = sc.nextInt(); // 123456
```

```
String numLength = "" + num;
```

```
int [] digit = new int[numLength.length()];
```

```
int i = 0;
```

```
while (true) {
```

```
    digit[i] = (num % 10); // 6
```

```
    i++;
```

```
    num /= 10; // 12345
```

```
    if (num <= 0) {
```

```
        break;
```

```
    }
```

```
}
```

```
for (int j = (digit.length - 1); j > 0; j--) {
```

```
    printf("%d ", digit[j]);
```

```
}
```

```
printf("%d ", digit[0]);
```

```
printf("Enter number:");
```

```
int num = sc.nextInt();
```

```
int divisors = 0;
```

```
int isPerfect = 0;
```

```
for (int i = 1; i <= num; i++) {  
    if (num % i == 0)  
        divisors++;
```

```
}
```

```
for (int i = 2; i < num; i++) {  
    if (num % i == 0)  
        isPerfect += i;  
}
```

```
if (divisors == 2)  
    printf("Prime");  
else if (divisors > 2)  
    printf("Not Prime");
```

```
if (isPerfect == num)  
    printf("Perfect");  
else if (isPerfect != num)  
    printf("Not Perfect");
```