**Branching and Looping Statements**

1) Print numbers from 10 to 50--------------

public class Main {

public static void main(String[] args) {

int i = 10;

while(i <= 50){

System.out.println(i);

i++;

}

}

}

2) Given numbers is positive or negative---------------

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner obj = new Scanner(System.in);

System.out.println("enter the number ");

int n=obj.nextInt();

if(n > 0){

System.out.println("entered number is positive");

}

else {

System.out.println("entered number is negative"); }

}

}

3) Reverse a number----------------------

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner obj = new Scanner(System.in);

System.out.println("enter the number ");

int n=obj.nextInt();

int reverse = 0;

while(n != 0){

int remainder = n % 10;

reverse = reverse \* 10 + remainder;

n = n / 10;

}

System.out.println(reverse);

}

}

4) Find smallest number among 3 numbers------------------

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner obj = new Scanner(System.in);

System.out.println("enter the number ");

int smallest = Integer.MAX\_VALUE;

for(int i=0;i<3;i++){

int num = obj.nextInt();

if(num < smallest){

smallest = num;

}

}

System.out.println("smallest number is "+smallest);

}

}

5) Purchase amount as input and final output with discount applied--------------

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner obj = new Scanner(System.in);

System.out.println("enter the amount ");

int amount = obj.nextInt();

int finalAmount = 0;

if(amount <= 500){

finalAmount = amount;

}

else if (amount > 500 && amount <= 1000){

finalAmount = amount \* (10/100);

}

else{

finalAmount = amount \* (20/100);

}

System.out.println("The final amount is "+finalAmount);

}

}

6) Print the Pattern---------------------

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

for(int i=5;i>=1;i--){

for(int k=5; k>i; k--){

System.out.print(k+" ");

}

for(int j=i;j>=1;j--){

System.out.print(i+" ");

}

System.out.println();

}

}

}