1.Write a java program to find the area f rectangle.

**import** java.util.\*;

**public** **class** pgm1 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** l=sc.nextInt();

**int** w=sc.nextInt();

System.***out***.println(l\*w);

}

}

Output:

2 3

6

2.Write a java program to check the given no Armstrong or not.

**import** java.util.\*;

**public** **class** pgm2 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

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

**int** r,s=0,temp=n;

**while**(n>0){

r=n%10;

s+=(**int**)Math.*pow*(r, 3);

n=n/10;

}

**if**(temp==s){

System.***out***.println("Armstrong Number");

}**else**{

System.***out***.println("Not an Armstrong number");

}

}

}

Output:

153

Armstrong Number

3.Write a java program to check the given no is palindrome or not.

**import** java.util.\*;

**public** **class** pgm3 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

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

**int** r,s=0,temp=n;

**while**(n>0){

r=n%10;

s=s\*10+r;

n=n/10;

}

**if**(temp==s){

System.***out***.println("Palindorme Number");

}**else**{

System.***out***.println("Not a Palindrome number");

}

}

}

Output:

121

Palindrome Number

4.Write a java program to generate first N prime numbers.

**import** java.util.\*;

**public** **class** pgm4 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

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

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

**int** c=0;

**for**(**int** j=2;j<i;j++){

**if**(i%j==0){

c=1;

**break**;

}

}

**if**(c==0){

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

}

}

}

}

Output:

19

2 3 5 7 11 13 17 19

5.Write a java program to print even numbers in between two given numbers.

**import** java.util.\*;

**public** **class** pgm1 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

**int** m=sc.nextInt();

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

**for**(**int** i=m+1;i<n;i++){

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

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

}

}

}

}

Output:

24 48

26 28 30 32 34 36 38 40 42 44 46

-----------------------Theoretical Questions--------------------------

1.What is Abstraction?

Ans:

It is the process of providing security to the data members inside the program by providing only functionality to the user and hiding the internal details.

Abstraction is accomplished by using abstract classes and interfaces.

2.What is Encapsulation?

Ans:

It is the mechanism of wrapping data(variables) and code acting on the data(methods) together as a single unit.

Variables of the class will be hidden from outside and can be accessed only through the methods of their current class.

3.What is JDK?

Ans:

Java Development Kit(JDK) provides all tools,executables,binaries required to compile,debug and execute a java program.

It is a platform-specific software.

JDK is superset of JRE.

4.What is JVM?

Ans:

It is the heart of the java programming language.

It is responsible for converting the byte code into machine understandable code.

It is platform-dependent. It is virtual because it doesn’t depend on underlying OS and machine hardware.This independence makes java write-once-run-anywhere.

5.Define inheritance.

Ans:

It is a concept by using which one class can access the properties of another class. It represents a parent-child relationship. It’s main use is code reusability.

6.How java achieved platform independence?

Ans:

When you compile Java programs using javac compiler it generates bytecode. We need to execute this bytecode using JVM (Java Virtual machine) Then, JVM translates the Java bytecode to machine understandable code.

You can download JVM's (comes along with JDK or JRE) suitable to your operating system and, once you write a Java program you can run it on any system using JVM.

This way, java achieved platform-independence.

7.Write the syntax of main function.

Ans:

public static void main(String args[])

8.what is conditional operator?

Ans:

The conditional operator is also known as the ternary operator. This operator consists of three operands and is used to evaluate Boolean expressions. The goal of the operator is to decide; which value should be assigned to the variable. The operator is written as:

variable x = (expression)? value if true: value if false

9.How many data types in java?

Ans:

Data types in Java are classified into two types:

1. Primitive—which include Integer, Character, Boolean, and Floating Point.
2. Non-primitive—which include Classes, Interfaces, and Arrays.

The **eight** primitive data types are: byte, short, int, long, float, double, boolean, and char.

10.What is constant? How it is declared?

Ans:

A **constant** is a variable whose value cannot change once it has been assigned. **Java** doesn't have built-in support for **constants**, but the variable modifiers static and final can be used to effectively create one. **Constants** can make your program more easily read and understood by others.

public class myClass {  
   static int days\_in\_week = 7; //I way

static final int DAYS\_IN\_WEEK = 7; //II way  
}