Program 1:

```java
/**
 * Create a class "Amount In Words" within a user defined package to convert
 *the amount into words. (Consider the amount not to be more than 100000).
 */
package amtInWords;

import java.util.Scanner;
class amountInWords{

    private static String one[] = { "", "one ", "two ", "three ", "four ", "five
", "six ", "seven ", "eight ", "nine ", "ten ", "eleven ", "twelve ", "thirteen
", "fourteen ", "fifteen ", "sixteen ", "seventeen ", "eighteen ", "nineteen " };
    private static String ten[] = { "", "", "twenty ", "thirty ", "forty ",
"fifty ", "sixty ", "seventy ", "eighty ", "ninety " };

    // n is 1-digit number or 2-digit number
    public String numToWords(int n, String s)
    {
        String str = "";
        // if n is more than 19, divide it
        if (n > 19) {
            str += ten[n / 10] + one[n % 10];
        }
        else {
            str += one[n];
        }

        // if n is non-zero
        if (n != 0) {
            str += s;
        }

        return str;
    }
    // Function to return a given number in words
    public String convertToWords(int n)
    {
        //For 0
```

```
        if (n == 0) {
            return "The number " + n + " in words is zero";
        }
        //if number is greater than 100000
        else if(n > 100000){
            return "Number cannot be greater than 100000";
        }
        else{
            // stores word representation of given number n
            String out = "";


            // handles digits at hundred thousands and one
            // millions places (if any)
            out += numToWords((int)((n / 100000) % 100), "lakh ");

            // handles digits at thousands and tens thousands
            // places (if any)
            out += numToWords((int)((n / 1000) % 100), "thousand ");

            // handles digit at hundreds places (if any)
            out += numToWords((int)((n / 100) % 10), "hundred ");

            if (n > 100 && n % 100 > 0) {
                out += "and ";
            }

            // handles digits at ones and tens places (if any)
            out += numToWords((int)(n % 100), "");

            return "The number " + n + " in words is " +out;
        }
    }
}
// Driver code
public class Exp5_1 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        //Thakin input from user
```

```
        System.out.println("Enter the number you want to convert to words:");
        int num = scanner.nextInt();

        //Object of class amountInWords
        amountInWords amt = new amountInWords();

        //Displaying the result
        System.out.printf(amt.convertToWords(num));
        scanner.close();
    }
}
```

Output:

```
D:\College\JAVA\Experiments\Exp5\amtInWords>javac -d . Exp5_1.java

D:\College\JAVA\Experiments\Exp5\amtInWords>java amtInWords.Exp5_1
Enter the number you want to convert to words:
1234
The number 1234 in words is one thousand two hundred and thirty four
D:\College\JAVA\Experiments\Exp5\amtInWords>java amtInWords.Exp5_1
Enter the number you want to convert to words:
100000
The number 100000 in words is one lakh
D:\College\JAVA\Experiments\Exp5\amtInWords>java amtInWords.Exp5_1
Enter the number you want to convert to words:
0
The number 0 in words is zero
D:\College\JAVA\Experiments\Exp5\amtInWords>java amtInWords.Exp5_1
Enter the number you want to convert to words:
12
The number 12 in words is twelve
D:\College\JAVA\Experiments\Exp5\amtInWords>java amtInWords.Exp5_1
Enter the number you want to convert to words:
10000000
Number cannot be greater than 100000
D:\College\JAVA\Experiments\Exp5\amtInWords>java amtInWords.Exp5_1
Enter the number you want to convert to words:
13970
The number 13970 in words is thirteen thousand nine hundred and seventy
D:\College\JAVA\Experiments\Exp5\amtInWords>
```

Program 2:

```
//Write a program to create user defined packages.
```

```
package figures;
public class squarePerimeter
{
    public int side;
    public void calc()
    {
        int peri=4*side;
        System.out.println("Perimeter is: "+peri);
    }
}
```

```
package geometry;
public class squareArea {
    public int side;
    public void calc()
    {
        int area=side*side;
        System.out.println("Area is: "+area);
    }
}
```

```
package calculate;
import geometry.squareArea;
import figures.squarePerimeter;
public class calSqDetails {
    public static void main(String[] args)
    {
        figures.squarePerimeter p = new figures.squarePerimeter();
        geometry.squareArea a1 = new geometry.squareArea();
        a1.side=5;
        a1.calc();
        p.side=5;
        p.calc();
    }
}
```

Output:

```
D:\College\JAVA\Experiments\Exp5>javac -d . squarePerimeter.java

D:\College\JAVA\Experiments\Exp5>javac -d . squareArea.java

D:\College\JAVA\Experiments\Exp5>javac -d . calSqDetails.java

D:\College\JAVA\Experiments\Exp5>javac -d .. calSqDetails.java

D:\College\JAVA\Experiments\Exp5>java calculate.calSqDetails
Area is: 25
Perimeter is: 20

D:\College\JAVA\Experiments\Exp5>
```

Question:

Question 1:

```java
/**
 * 1. Write a Java Program using static import.
 */

import static java.lang.Math.*;
import static java.lang.System.*;

public class Question {
    public static void main(String[] args)
    {
        // We are calling static member of System class
        // directly without System class name
        out.println(sqrt(4));
        out.println(pow(2, 2));
        out.println(abs(6.3));
    }
}
```

Output:

```
D:\College\JAVA\Experiments\Exp5>javac Question.java

D:\College\JAVA\Experiments\Exp5>java Question
2.0
4.0
6.3

D:\College\JAVA\Experiments\Exp5>
```