

# EXERCISE: PREDEFINED CLASS

**STIA1123 –PROGRAMMING II**

1. Write an application that calculates the squares and cubes of the numbers from 0 to 10 and prints the resulting values in a table format, a shown below. You must use Math class to solve this problem.

Number Square Cube

0 0 0

1 1 1

2 4 8

and so on

public class PredefinedClass {

public static void main(String[] args) {

String a = "Number", b = "Square", c = "Cube";

System.out.printf("%s%8s%7s", a,b,c);

int n = 0;

do{

double sq = Math.pow(n,2);

double cb = Math.pow(n,3);

System.out.printf("%n%d%10.0f%9.0f",n,sq,cb);

n++;

}while(n<=10);

System.out.println("");

}

}

1. Write a program called CountA that accepts a String parameter and display the number of times the character 'A' is found in the string.

Answer:

import.java.util.Scanner;

public class CountA {

public static void main(String[] args) {

Scanner sc = new Scanner (System.in);

System.out.print("Input a word: "); // Get input from users

String x = sc.next();

countA(x);

public static void countA(String x){ // String parameter from main method

char someChar = 'A'; // Declare char A to be count

int count = 0;

for(int i=0; i<x.length();i++){ // Loop to find A letter in the String x

if(x.charAt(i)==someChar){

count++;

}

}

System.out.println("Total 'A' letters: " + count); // Print the total A letter that been counted

}

}

1. Write a program called PrintReverse that accepts a String parameter and print the string that contains the characters of the parameter in reverse order.

Answer:

import.java.util.Scanner;

public class PrintReverse {

public static void main(String[] args) {

Scanner sc = new Scanner (System.in);

System.out.print(“Input a word: “);

String x = sc.next();

printReverse(x);

public static void printReverse(String x){

for(int i = x.length()-1; i>=0; i--){

System.out.print(x.charAt(i));

}

}

}

1. Write a program called RandomInRange that accepts two integer parameters representing a range. Display a random integer in the specified range (inclusive). Display zero if the first parameter is greater than the second.

Answer:

public class RandomInRange {

public static void main(String[] args) {

System.out.print("Input 1st integer: ");

int y = sc.nextInt();

System.out.print("Input 2nd integer: ");

int z = sc.nextInt();

randomInRange(y,z);

public static void randomInRange(int y, int z){

int min, max, ans;

min = y;

max = z;

ans = (int)Math.random()\*(max-min+1)+min;

if (y > z){

System.out.println("0");

}

else

System.out.println("The random integer from " + y + " and " + z + " is: "

+ ans);

}

}