Exam1\_1:

import java.util.\*;

public class Exam1\_1 {

public static void main(String[] args){

displayMenu();

}

public static void displayMenu(){

char choice = ' ';

Scanner read = new Scanner(System.in);

System.out.printf("-------MENU--------\n"

+ "a. Addition\n"

+ "b. Subtraction \n");

System.out.print("Enter your choice: ");

choice = read.nextLine().charAt(0);

int randA, randB, answer, Correct=0, Wrong=0;

char Continue = ' ';

do{

randA = (int)(Math.random()\*100)+1;

randB = (int)(Math.random()\*100)+1;

if(choice == 'a'){

System.out.printf("%d + %d =? ", randA, randB);

answer = read.nextInt();

if(answer == randA + randB){

System.out.println("Correct");

Correct++;

}else{

System.out.println("Wrong");

Wrong++;

}

}else{

System.out.printf("%d - %d =? ", randA, randB);

answer = read.nextInt();

if(answer == randA - randB){

System.out.println("Correct");

Correct++;

}else{

System.out.println("Wrong");

Wrong++;

}

}

System.out.print("Continue(y/n)? ");

Continue = read.next().charAt(0);

String temp = read.nextLine();

}while(Continue == 'y');

System.out.printf("Number of CORRECT answers: %d \n"

+ "Number of WRONG answers: %d ", Correct, Wrong);

}

}

Output:

-------MENU--------

a. Addition

b. Subtraction

Enter your choice: a

54 + 55 =? 109

Correct

Continue(y/n)? y

37 + 60 =? 32

Wrong

Continue(y/n)? n

Number of CORRECT answers: 1

Number of WRONG answers: 1

Exam1\_2:

import java.util.\*;

import java.io.\*;

public class Exam1\_2 {

public static void main(String[] args){

String[] names = new String[6];

try {

displayInOrder(names);

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

public static void displayInOrder(String[] names) throws Exception{

String fname = "C:\\Users\\yijiesun1993\\Desktop\\dataFile.txt";

BufferedReader in = new BufferedReader(new FileReader(fname));

String line = new String();

int i = 0;

while((line=in.readLine())!=null){

names[i] = line;

i++;

}

Arrays.sort(names);

System.out.println("Names in alphabetical order");

for(int j = 0; j<names.length; j++){

System.out.println(" "+names[j]);

}

System.out.printf("Tran,Justin is at index %d", Arrays.binarySearch(names, "Tran,Justin"));

}

}

Output:

Names in alphabetical order

Bui,Emily

Ho,Holly

Medina,Christian

Rai,Varun

Tran,Justin

Vu,Tyler

Tran,Justin is at index 4

Exam1\_3:

import java.util.\*;

public class Exma1\_3 {

public static void main(String[] args){

PERSON name[] = {new PERSON("Donavan",33,3.3), new PERSON("Michael",22,2.2),

new PERSON("David",17,1.7), new PERSON("Tevin",34,3.4),

new PERSON("Felipe",27,2.7), new PERSON("Simin",14,1.4)

};

displayOldest(name);

displayLowest(name);

}

public static void displayOldest(PERSON[] name){

int oldest = 0;

int ageCol = 1;

int index = 0;

for(int i = 0; i<name.length; i++){

if(oldest < name[i].getAge()){

oldest=name[i].getAge();

index = i;

}

}

System.out.println("The oldest person name is " + name[index].getName());

}

public static void displayLowest(PERSON[] name){

double lowest = 4.0;

int gpaCol = 2;

int index = 0;

for(int i = 0; i<name.length; i++){

if(lowest > name[i].getGpa()){

lowest=name[i].getGpa();

index = i;

}

}

System.out.println("The lowest person name is " + name[index].getName()

+ " Age is: " + name[index].getAge());

}

}

PERSON:

import java.util.\*;

import java.io.\*;

public class PERSON {

private String name;

private int age;

private double gpa;

PERSON(String n, int a, double d)

{name=n; age = a;gpa = d;}

public String getName(){return name;}

public int getAge() {return age;}

public double getGpa(){return gpa;}

}

Output:

The oldest person name is Tevin

The lowest person name is Simin Age is: 14

Exam1\_4:

import java.util.\*;

public class Exam1\_4 {

public static void main(String[] main){

int n=15;

System.out.println(Fib(n));

}

public static double Fib(int n){

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

System.out.println("3^" +n+" = " + pow);

if(n==2){

return Math.pow(3, 2);

}else{

return pow+Fib(--n);

}

}

}

Output:

3^15 = 1.4348907E7

3^14 = 4782969.0

3^13 = 1594323.0

3^12 = 531441.0

3^11 = 177147.0

3^10 = 59049.0

3^9 = 19683.0

3^8 = 6561.0

3^7 = 2187.0

3^6 = 729.0

3^5 = 243.0

3^4 = 81.0

3^3 = 27.0

3^2 = 9.0

2.1523356E7