オブジェクト指向プログラミング演習

情報通信システム17173033 後藤亘

**課題1**

**ソースコード**

import java.util.Random;

public class homeworkjava1a{

public static void main(String[] args) {

Random rand = new Random();

int i = rand.nextInt(8);

System.out.println(i+1);

}

}

**実行結果**

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

3

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

1

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

4

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

2

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

2

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

3

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

3

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

7

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

5

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

3

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1a

6

**ソースコード**

import java.util.Random;

public class homeworkjava1b{

public static void main(String[] args) {

Random rand = new Random();

int i = rand.nextInt(8);

System.out.println(-1\*(i+1));

}

}

**実行結果**

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-6

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-7

gotouwatarusMBP:homework gotouwataru$

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-6

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-3

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-1

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-6

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-2

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-6

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1b

-2

**ソースコード**

import java.util.Random;

public class homeworkjava1c{

public static void main(String[] args) {

Random rand = new Random();

int i = rand.nextInt(90);

System.out.println(i+10);

}

}

**実行結果**

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

75

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

46

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

74

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

69

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

83

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

18

gotouwatarusMBP:homework gotouwataru$ java homeworkjava1c

26

**課題2**

**ソースコード**

import java.util.\*;

public class homeworkjava2{

public static void main(String[] args) {

System.out.println("整数を入力してください");

int input = new java.util.Scanner(System.in).nextInt();

Random rand = new Random();

int i = rand.nextInt(11);

System.out.println(input-(i-5));

}

}

**実行結果**

gotouwatarusMBP:homework gotouwataru$ java homeworkjava2

数字を入力してください

10

7

gotouwatarusMBP:homework gotouwataru$ java homeworkjava2

数字を入力してください

10

9

gotouwatarusMBP:homework gotouwataru$ java homeworkjava2

数字を入力してください

10

14

gotouwatarusMBP:homework gotouwataru$ java homeworkjava2

数字を入力してください

10

6

**課題3**

**ソースコード**

import java.util.\*;

public class homeworkjava3{

public static void main(String[] args) {

System.out.println("整数を入力してください");

int input = new java.util.Scanner(System.in).nextInt();

int count = 1;

boolean flag = true;

while(flag == true){

input = input/10;

if(input == 0){

break;

}

count++;

}

System.out.println("桁数は"+ count);

}

}

実行結果

gotouwatarusMBP:homework gotouwataru$ java homeworkjava3

整数を入力してください

1

桁数は1

gotouwatarusMBP:homework gotouwataru$ java homeworkjava3

整数を入力してください

10

桁数は2

gotouwatarusMBP:homework gotouwataru$ java homeworkjava3

整数を入力してください

87843

桁数は5

**課題4**

**ソースコード**

import java.util.\*;

public class homeworkjava4{

public static void main(String[] args) {

System.out.println("人数を入力してください");

int input = new java.util.Scanner(System.in).nextInt();

int[] score = new int[input];

int count = 0;

System.out.println("点数を入力してください");

for(count = 0; count < input; count++){

score[count]= new java.util.Scanner(System.in).nextInt();

}

int sum = 0;

int high = 0;

int low = 100000;

for(count = 0; count < input; count++){

sum = sum + score[count];

if(high < score[count]){

high = score[count];

}

if(low > score[count]){

low = score[count];

}

}

int ave = sum/input;

System.out.println("合計点は"+ sum);

System.out.println("平均点は"+ ave);

System.out.println("最高点は"+ high);

System.out.println("最低点は"+ low);

}

}

**実行結果**

gotouwatarusMBP:homework gotouwataru$ java homeworkjava4

人数を入力してください

5

点数を入力してください

97

57

66

73

82

合計点は375

平均点は75

最高点は97

最低点は57