

# オブジェクト指向プログラミング演習

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## 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