

## Ex1

Given the following class:

```
public class CheckingAccount {

    public int amount;

    public CheckingAccount(int amount) {
        this.amount = amount;
    }

    public int getAmount() {
        return amount;
    }

    public void changeAmount(int x) {
        amount += x;
    }
}
```

And given the following main method, located in another class:

```
public static void main(String[] args){
    CheckingAccount acct = new CheckingAccount((int)(Math.random() * 1000));
    //line n1
    System.out.println(acct.getAmount());
}
```

Which three lines, when inserted independently at line n1, cause the program to print a 0 balance?

- A.this.amount = 0;
- B.amount = 0;
- C.acct(0);
- D.acct.amount = 0;
- E.acct.getAmount() = 0;
- F.acct.changeAmount(0);
- G.acct.changeAmount(-acct.amount);
- H.acct.changeAmount(-acct.getAmount());

## Ex2

```
public class Test {

    static String[][] arr = new String[3][];
}
```

```

private static void doPrint() {
    //insert code here
}

public static void main(String[] args) {
    String[] class1 = new String[]{"A", "B", "C"};
    String[] class2 = new String[]{"L", "M", "N", "O"};
    String[] class3 = new String[]{"I", "J"};
    arr[0] = class1;
    arr[1] = class2;
    arr[2] = class3;
    Test.doPrint();
}
}

```

Which code fragment, when inserted at line //insert code here, enables the code to print COJ?

A.

```

int i = 0;
for (String[] sub : arr) {
    int j = sub.length - 1;
    for (String str : sub) {
        System.out.println(str[j]);
        i++;
    }
}

```

B.

```

for (int i = 0; i < arr.length; i++) {
    int j = arr[i].length - 1;
    System.out.print(arr[i][j]);
}

```

C.

```

int i = 0;
for (String[] sub : arr[][])) {
    int j = sub.length;
    System.out.print(arr[i][j]);
    i++;
}

```

```
}
```

D.

```
for (int i = 0; i < arr.length - 1; i++) {
    int j = arr[i].length - 1;
    System.out.print(arr[i][j]);
    i++;
}
```

Ex3

Given the code fragment:

```
public static void main(String[] args) {
    int ii = 0;
    int jj = 7;
    for (ii = 0; ii < jj - 1; ii = ii + 2) {
        System.out.print(ii + " ");
    }
}
```

What is the result?

A. 2 4

B. 0 2 4 6

C. 0 2 4

D. Compilation fails

Ex4

Given:

```
int i, j = 0;
i = (3 * 2 + 4 + 5);
j = (3 * ((2 + 4) + 5));
System.out.println("i:" + i + "\nj:" + j);
```

What is the result?

A.

i:16

j:33

B.

i.15

j:33

C.

i:33

j:23

D.

i:15

j:23

Ex5

Given the code fragment:

```
float x = 22.00f % 3.00f;
```

```
int y = 22 % 3;
```

```
System.out.print(x + ", " + y);
```

What is the result?

A.1.0, 1

B.1.0f, 1

C.7.33, 7

D.Compilation fails

E.An exception is thrown at runtime

Ex6

Given:

```
public class Series {
```

```
    public static void main() {
        int arr[] = {1, 2, 3};
        for (int var : arr) {
            int i = 1;
            while (i <= var);
            System.out.println(i++);
        }
    }
}
```

What is the result?

A.  
1  
1  
1

B.  
1  
2  
3

C.  
2  
3  
4

- D. Compilation fails  
E. The loop executes infinite times

Ex7

Given the code fragment:

```
// insert code here
arr[0] = new int[3];
arr[0][0] = 1;
arr[0][1] = 2;
arr[0][2] = 3;
```

```
arr[1] = new int[4];
arr[1][0] = 10;
arr[1][1] = 20;
arr[1][2] = 30;
arr[1][3] = 40;
```

Which two statements, when inserted independently at line // insert code here, enable the code to compile?

- A.int[][] arr = null;  
B.int[][] arr = new int[2];  
C.int[][] arr = new int[2][];  
D.int[][] arr = new int[][4];  
E.int[][] arr = new int[2][];  
F.int[][] arr = new int[0][4];

## Ex8

Given the code fragment:

```
int[] a = new int[]{1, 2, 3, 4, 5};
for (XXX) {
    System.out.print(a[e]);
}
```

Which option can replace xxx to enable the code to print 135?

- A.int e = 0; e <= 4; e++
- B.int e = 0; e < 5; e += 2
- C.int e = 1; e <= 5; e += 1
- D.int e = 1; e < 5; e +=2

## Ex9

Given:

```
public class MarkList {

    int num;

    public static void graceMarks(MarkList obj4) {
        obj4.num += 10;
    }

    public static void main(String[] args) {
        MarkList obj1 = new MarkList();
        MarkList obj2 = obj1;
        MarkList obj3 = null;
        obj2.num = 60;
        graceMarks(obj2);
    }
}
```

How many objects are created in the memory runtime?

- A. 1
- B. 2
- C. 3
- D. 4

## Ex10

What is the proper way to defined a method that take two int values and returns their sum as an int

value?

- A.int sum(int first, int second) { first + second; }
- B.int sum(int first, second) { return first + second; }
- C.sum(int first, int second) { return first + second; }
- D.int sum(int first, int second) { return first + second; }
- E void sum (int first, int second) { return first + second; }