

Ce valoare întreagă se va tipări la linia marcată cu `/*` în urma execuției programului de mai jos:

```
abstract class A
{
    public int proc(A p)
    {
        return 98;
    }
}

class B extends A
{
    public int proc(A p)
    {
        return 17;
    }
}

class C extends A
{
    public int proc(C p)
    {
        return 65;
    }
}

public class Main
{
    public static void main(String argv[])
    {
        C x = new C();
        A y = new B();
        C z = new C();
        System.out.println(y.proc(x) + z.proc(x)); /*
    }
}
```

Răspuns: $17 + 65 = 82$

Question 3

Not yet
answered

Marked out of
3.00

Flag question

Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului?

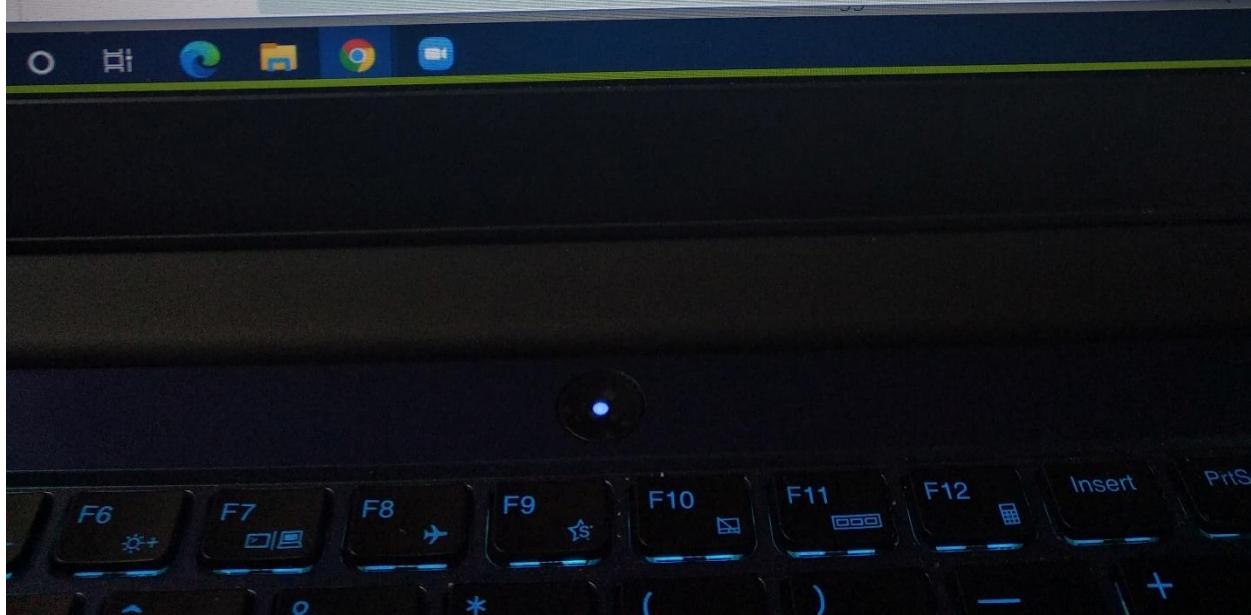
```
abstract class A {
    public int proc(A p) { return 74; }
}

class B extends A {
    public int proc(A p) { return 33; }
}

class C extends A {
    public int proc(C p) { return 71; }
}

public class Main {
    public static void main(String argv[]) {
        C x = new C();
        A y = new B();
        C z = new C();
        System.out.println(y.proc(x) + z.proc(x)); /*
    }
}
```

Answer:



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question

Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului de mai jos?

```
class Pair {
    private int v;
    private static int t[];
    public Pair(int x, int[] y) { v = x; t = y; }
    public void setVT(int x, int[] y) { v = x; t = y; }
    public void setVIT(int x, int i, int y) { v = x; t[i] = y; }
    public int getV() { return v; }
    public int[] getT() { return t; }
}
class Main {
    public static Pair call(Pair p, Pair q) {
        p.setVT(17, q.getT());
        p = q;
        p.setVIT(72, 1, 21);
        int tz[] = {89, 41};
        return new Pair(94, tz);
    }
    public static void main(String[] args) {
        int ta[] = {0, 13};
        int tb[] = {45, 99};
        Pair a = new Pair(66, ta);
        Pair b = new Pair(55, tb);
        Pair c = b;
        b = call(a, c);
        System.out.println(a.getT()[0]);
    }
}
```

Answer:

Not yet
answered

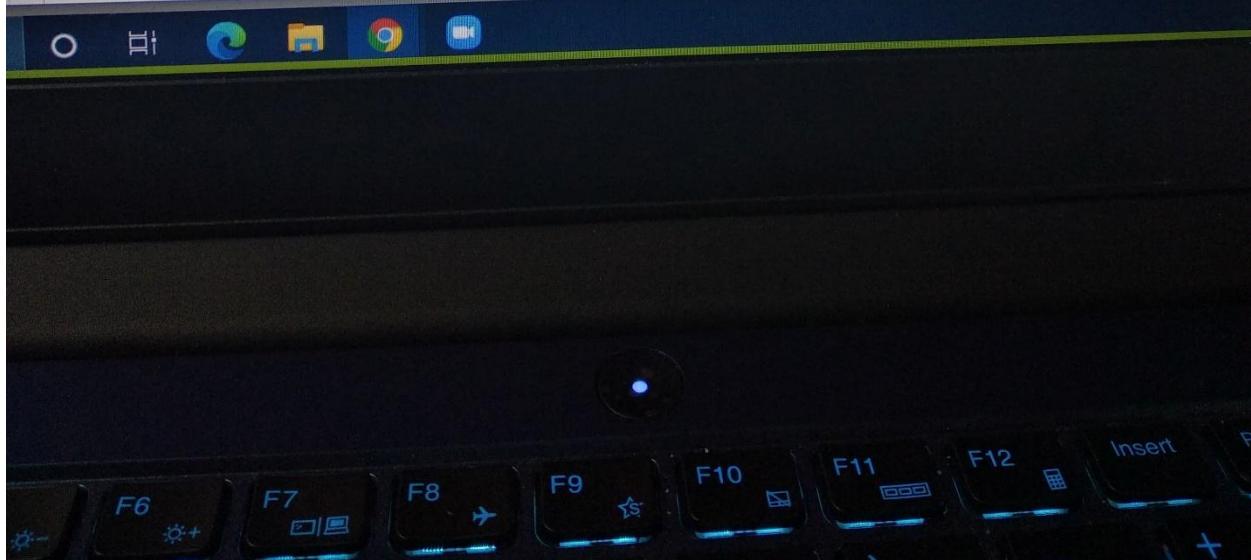
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3.00

Flag question

Ce valoare intreagă se va tipări la linia marcată cu /* în urma executiei programului:

```
class Ex extends Exception {}  
class Main {  
    public static void main(String argv[]) throws Ex {  
        int i = 0;  
        int z = 0;  
        while (i < 2) {  
            try {  
                int k = 0;  
                while (k < 3) {  
                    k++;  
                    z = z + 2;  
                    if (i == 0) throw new Ex();  
                }  
                z = z + 2;  
            } catch (Ex e) {  
                System.out.println(e);  
            } finally {  
                z = z + 1;  
            }  
            i++;  
        }  
        System.out.println(z); /*  
    }  
}
```

Answer:



Obiecte

Question 4

Not yet
answered

Marked out of
1.00

Flag question

Ce valoare întreagă se va tipări la linia marcată cu /* în urma execuției programului?

```
abstract class A {  
    public int proc(B p) { return 25; }  
}  
  
class B extends A {  
    public int proc(C p) { return 96; }  
}  
  
class C extends B {  
    public int proc(C p) { return 99; }  
}  
  
public class Main {  
    public static void main(String argv[]) {  
        A x = new C();  
        C y = new C();  
        C z = new C();  
        System.out.println(x.proc(z) + y.proc(z)); /*  
    }  
}
```



Answer:

Previous page

Question 3

Not yet
answered

Marked out of
3.00

Flag question

Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei pro-

```
class ExA extends Exception {}  
class ExB extends ExA {}  
class Main {  
    public static int make(int a) throws ExA {  
        for (int k = 0; k < 3; k++) {  
            a = a + 2;  
            if (a == 3) throw new ExB();  
        }  
        return a;  
    }  
    public static void main(String argv[]) throws ExA {  
        int x = 0;  
        for (int i = 0; i < 2; i++) {  
            try {  
                x++;  
                x = make(x);  
                x++;  
            } catch (ExB e) {  
                System.out.println(e);  
            } finally {  
                x++;  
            }  
        }  
        System.out.println(x); /*  
    }  
}
```

Answer:

Not yet
answered

Marked out of
3.00

Flag question

Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului de mai jos?

```
class Pair {
    private int v;
    private int t[];
    public Pair(int x, int [] y) { v = x; t = y; }
    public void setVT(int x, int[] y) { v = x; t = y; }
    public void setVIT(int x, int i, int y) { v = x; t[i] = y; }
    public int getV() { return v; }
    public int[] getT() { return t; }
}
class Main {
    public static Pair call(Pair p, Pair q) {
        q.setVT(100, p.getT());
        q = p;
        q.setVIT(53, 1, 34);
        int tz[] = {88, 81};
        return new Pair(20, tz);
    }
    public static void main(String[] args) {
        int ta[] = {71, 59};
        int tb[] = {11, 61};
        Pair a = new Pair(19, ta);
        Pair b = new Pair(83, tb);
        Pair c = b;
        b = call(a, b);
        System.out.println(c.getT()[1]); ///*
    }
}
```



GAMING



Bremen POO - Încercare 1 (online) (page 4 of 8) - Open
 cv.upc.ro/mod/quiz/attempt.php

You are screen sharing Stop Share

Programarea Orientata pe Obiecte

Quiz navigation

Finish attempt...
Time left: 0:07:49

Question 4
Not yet answered
Marked out of 3.00
Flag question

Ce valoare intreaga se va tiparii la linia marcată cu /* în urma executiei programului de mai jos?

```
class Ex extends Exception {}
class Main {
    public static void main(String args[]) throws Ex {
        int i = 0;
        int z = 0;
        while (i < 2) {
            try {
                int k = - 0;
                while (k < 3) {
                    k++;
                    z = z + 2;
                    if (k == 0) throw new Ex();
                }
                z = z + 2;
            } catch (Ex e) {
                System.out.println(e);
            } finally {
                z = z + 1;
            }
            i++;
        }
        System.out.println(z); /*
    }
}
```

Answer:

Type here to search

Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare de compilare când sunt inserate la poziția indicată cu /* Timp rămas: 0:21:08

```
//A.java
package p1;
public class A {
    private void m() {}
    void n() {}
    protected void p() {}
    public void q() {}
}
```

```
//B.java
package p2;
import p1.A;
public class B extends A {
    private void r() {}
    void s() {}
    protected void t() {}
    public void k() {}
}
```

```
//C.java
package p2;
import p1.A;
public class C {
    private void z() {}
    public void v(A a, B b, C c) {
        /*AICI*/
    }
}
```

```
public void v(A a, B b, C c) {  
    /*AICI*/  
}
```

Selectați unul sau mai multe:

b.s();

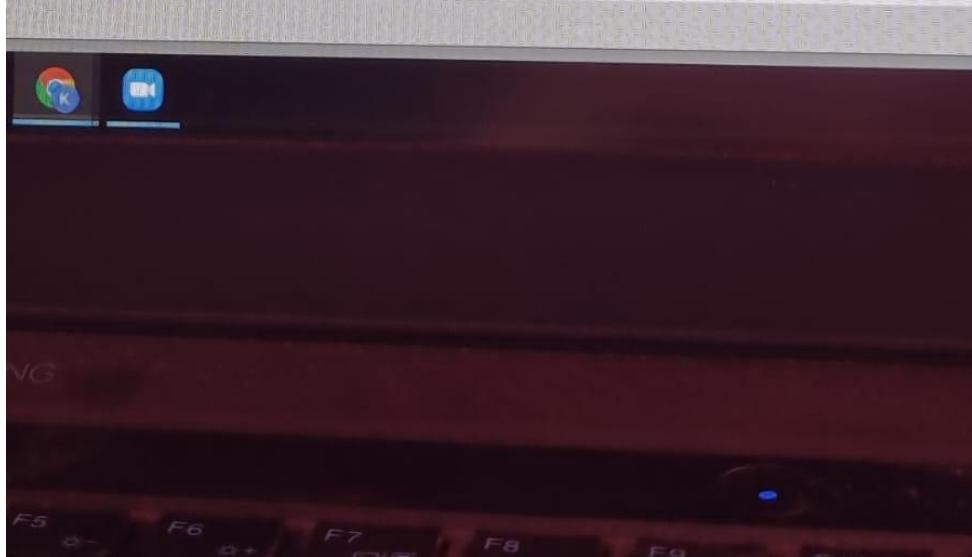
c.z();

a.p();

a.n();

b.t();

Pagina precedentă



Timp ră

Considerând următorul cod Java, care din expresiile enumerate mai jos vor avea valoarea de adevar FALSE când sunt evaluate la poziția indicată cu /*AICI*/?

```
class A {}  
class B extends A {}  
class Main {  
    public static void main(String argv[]) {  
        A a = new B();  
        B b = new B();  
        Object o = new A();  
        System.out.println(/*AICI*/);  
    }  
}
```

Selectați unul sau mai multe:

- A.class.equals(a.getClass())
- A.class.isInstance(b)
- o.getClass().equals(Object.class)
- a.getClass().equals(b.getClass())
- B.class.isInstance(a)

Ce valoare întreagă se va tipări la linia marcată cu /* în urma execuției programului de mai jos?

```
0  
u  
class A {  
    public int m(A p) { return 8; }  
    public int n(A p) { return 7; }  
}  
class B extends A {  
    public int m(B p) { return 2; }  
    public int n(A p) { return 44; }  
}  
class C extends A {  
    public int m(A p) { return 4; }  
    public int n(A p) { return 4; }  
}  
class D extends A {  
    public int m(A p) { return 11; }  
    public int n(D p) { return 30; }  
}  
class Main {  
    public static void main(String argv[]) {  
        A x = new C();  
        A y = new D();  
        D z = new D();  
        System.out.println(x.n(z) + y.m(z));/*  
    }  
}
```

Răspuns:



Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare de compilare când sunt inserate la poziția indicată cu /*AICI*/?

```
interface I {}
interface J {}
interface IJ extends I,J {}
class A implements I {}
class B extends A implements J {}
class C extends A {}
class D implements IJ {}
class Main {
    public void doSomething(I i, J j, IJ ij) {
        A a = new A();
        B b = new B();
        C c = new C();
        D d = new D();
        /*AICI*/
    }
}
```

Selectați unul sau mai multe:

`j = c;`

`b = d;`

`i = c;`

`ij = jj;`

`i = jj;`

Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare de compilare când sunt inserate la poziția indicată cu /*AICI*/?

```
interface I {
    public void g();
}
interface J extends I {
    public void h();
}
abstract class A implements I {
    public void m() {}
}
class B extends A implements J {
    public void p() {}
    public void g() {}
    public void h() {}
}
class Main {
    public static void main(String argv[]) {
        J j = new B();
        A a = new B();
        /*AICI*/
    }
}
```

Selectați unul sau mai multe:

j.g();

a.p();

a.g();

j.m();

a.h();

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Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului de mai jos?

```
class Ex1 extends Exception {}  
class Ex2 extends Ex1 {}  
class Main {  
    public static void m(int x) throws Ex1 {  
        if(x == 1) throw new Ex2();  
    }  
    public static void main(String argv[]) {  
        int k = 0;  
        int a = 1;  
        while (k < 2) {  
            try {  
                k++;  
                m(k);  
                a++;  
            } catch(Ex2 e) {  
                a += 2;  
            } catch(Ex1 e) {  
                a += 3;  
            } finally {  
                a++;  
            }  
        }  
        System.out.println(a);/*  
    }  
}
```

Răspuns:

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Ce valoare întreagă se va tipări la linia marcată cu /* în urma execuției programului de mai jos?

```
class A {  
    private int x;  
    public A(int x) { this.x = x; }  
    public void setX(int x) { this.x = x; }  
    public int getX() { return x; }  
}  
class B {  
    private A y;  
    public B(A y) { this.y = y; }  
    public void setY(A y) { this.y = y; }  
    public A getY() { return y; }  
}  
class Main {  
    public static void m(B z, B t) {  
        A w = new A(4);  
        z.setY(w);  
        w.setX(7);  
        t = new B(new A(3));  
    }  
    public static void main(String[] args) {  
        B a = new B(new A(35));  
        B b = new B(new A(33));  
        m(a,b);  
        System.out.println(a.getY().getX() + b.getY().getX());/*  
    }  
}
```

Răspuns:

Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare de compilare când sunt inserate la poziția indicată cu /*AICI*/?

```
class A {  
    public A m(int a) {  
        return new A();  
    }  
}  
class B extends A {  
    public void n(A a) {  
        return;  
    }  
/*AICI*/  
}
```

Selectați unul sau mai multe:

- ```
public int n(A a) {
 return 0;
}
```
- ```
public int n(B a) {  
    return 0;  
}
```
- ```
public A m(B a) {
 return new B();
}
```
- ```
public A m(int a) throws Exception {  
    throw new Exception("Message");  
}
```
- ```
public A m(int p) {
 return new B();
}
```

9 întrebare

Nu a primit

răspuns încă

Marcat din 1,00

Întrebare cu

flag

Considerind următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare de co

```
class A {
 protected int a;
 public A(int a) {
 this.a = a;
 }
}
class B extends A {
 private int b;
 /*AICI*/
}
```

Selectați unul sau mai multe:

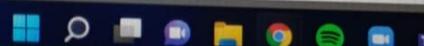
```
public B(int a, int b) {
 super(a);
 this.b = b;
}
```

```
public B(int a, int b) {
 this.a = a;
 this.b = b;
}
```

```
public void m(int a, int b) {
 super(a);
 this.b = b;
}
```

```
public B(int b) {
 super(0);
 this.b = b;
}
```

```
public B(int a, int b) {
 this.b = b;
 super(a);
}
```



Ce valoare întreagă se va tipări la linia marcată cu /\* în urma execuției programului de mai jos?

```
class A {
 private static int x;
 private int y;
 public A(int x1, int y1) { x = x1; y = y1;}
 public void setXY(int x1, int y1) { x = x1; y = y1;}
 public int getX() { return x; }
 public int getY() { return y; }
}
class Main {
 public static void m(A z, A t) {
 z.setXY(3,20);
 z = new A(2,17);
 }
 public static void main(String[] args) {
 A a = new A(9,50);
 A b = new A(7,28);
 m(a,b);
 System.out.println(a.getY() + b.getX());/*
 }
}
```

Răspuns:

ASUS

Ce valoare întreagă se va tipări la linia marcată cu /\* în urma execuției programului de mai jos?

```
class Ex extends RuntimeException {}
class Main {
 public static void m(int x) throws Ex {
 if(x == 2) throw new Ex();
 }
 public static void main(String argv[]) {
 int a = 2;
 try {
 for(int i = 0; i < 4; i++) {
 m(i);
 a = a + 2;
 }
 } catch(Ex e) {
 a++;
 } finally {
 a++;
 }
 System.out.println(a);/*
 }
}
```

Răspuns:



Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare sunt inserate la poziția indicată cu /\*AICI\*/?

```
abstract class A {
 public void m(int p) {}
 public void r(int p) {}
}

class B extends A {
 public void m(int p) {}
 public void p(int p) {}
 public void q(int p) {}
}

class C extends A {
 public void m(int p) {}
 public void p(int p) {}
 public void r(int p, int t) {}
}

class Main {
 public static void main(String argv[]) {
 A a = new B();
 C c = new C();
 /*AICI*/
 }
}
```



```
 }
}
```

Selectați unul sau mai multe:

c.equals(a);

c.r(1);

a.q(1);

a.p(1);

a.m(1);

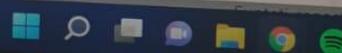
ASUS

Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce

```
class G<T> {
 /* ... */
 void met(T t) {/* ... */}
}
class A {/* ... */}
class B extends A {/* ... */}
public class Main {
 public static void test(G<? extends A> param) {
 G<A> x = new G<A>();
 G y = new G();
 G<? extends A> z = param;
 /*AICI*/
 }
}
```

Selectați unul sau mai multe:

- z.met(new A());
- z.met(new B());
- z = x;
- x = y;
- x.met(new B());
- z = y;



Întrebare  
a a primit  
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Întrebare cu  
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Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos, să selectezi cele care pot fi returnate de la m()?

```
class A {
 private int a = 0;
 private static int b = 0;

 public int m() {
 return a;
 }

 public static int n(A x) {
 /*AICI*/
 }
}
```



Selectați unul sau mai multe:

| return m();

| return b;

| return x.a;

| return this.a;

| return a;

Pagina precedentă



Ce valoare întreagă se va tipări la linia marcată cu /\* în urma execuției programului de mai jos?

```
class A {
 public int m(A p) { return 12; }
 public int n(A p) { return 38; }
}

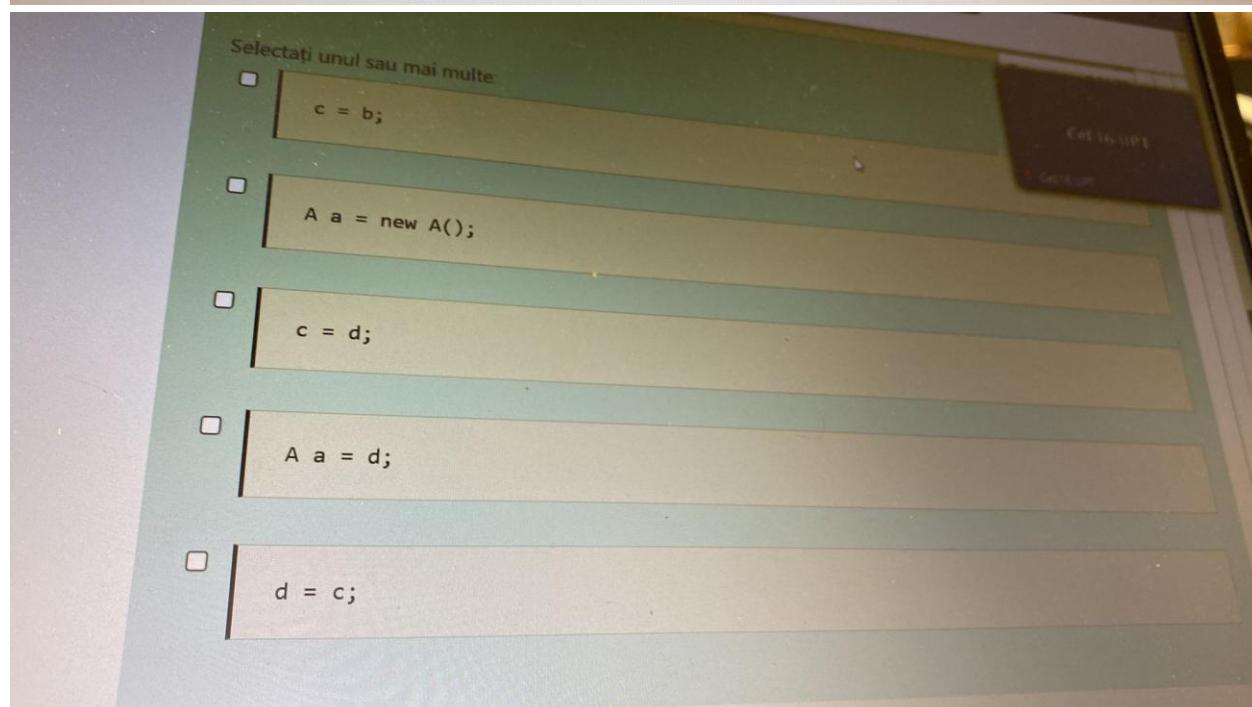
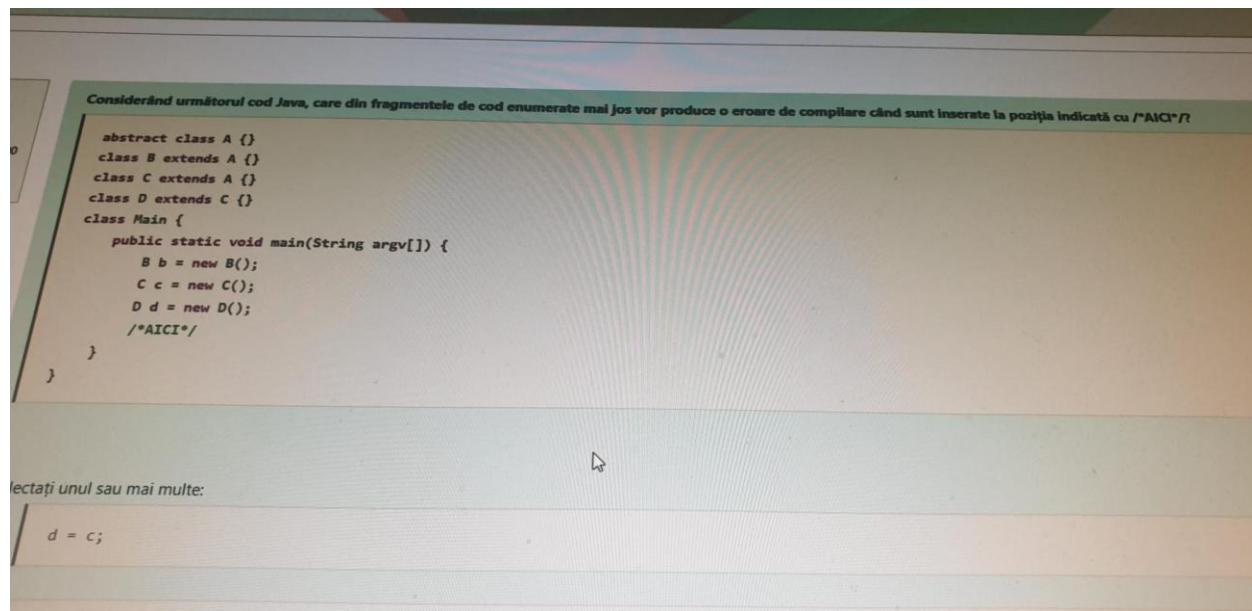
class B extends A {
 public int m(B p) { return 3; }
 public int n(A p) { return 7; }
}

class C extends A {
 public int m(A p) { return 38; }
 public int n(A p) { return 4; }
}

class D extends A {
 public int m(A p) { return 1; }
 public int n(D p) { return 2; }
}

class Main {
 public static void main(String argv[]) {
 A x = new C();
 A y = new D();
 D z = new D();
 System.out.println(x.m(z) + y.n(z));/*
 }
}
```





Timp rămas 0:09:03

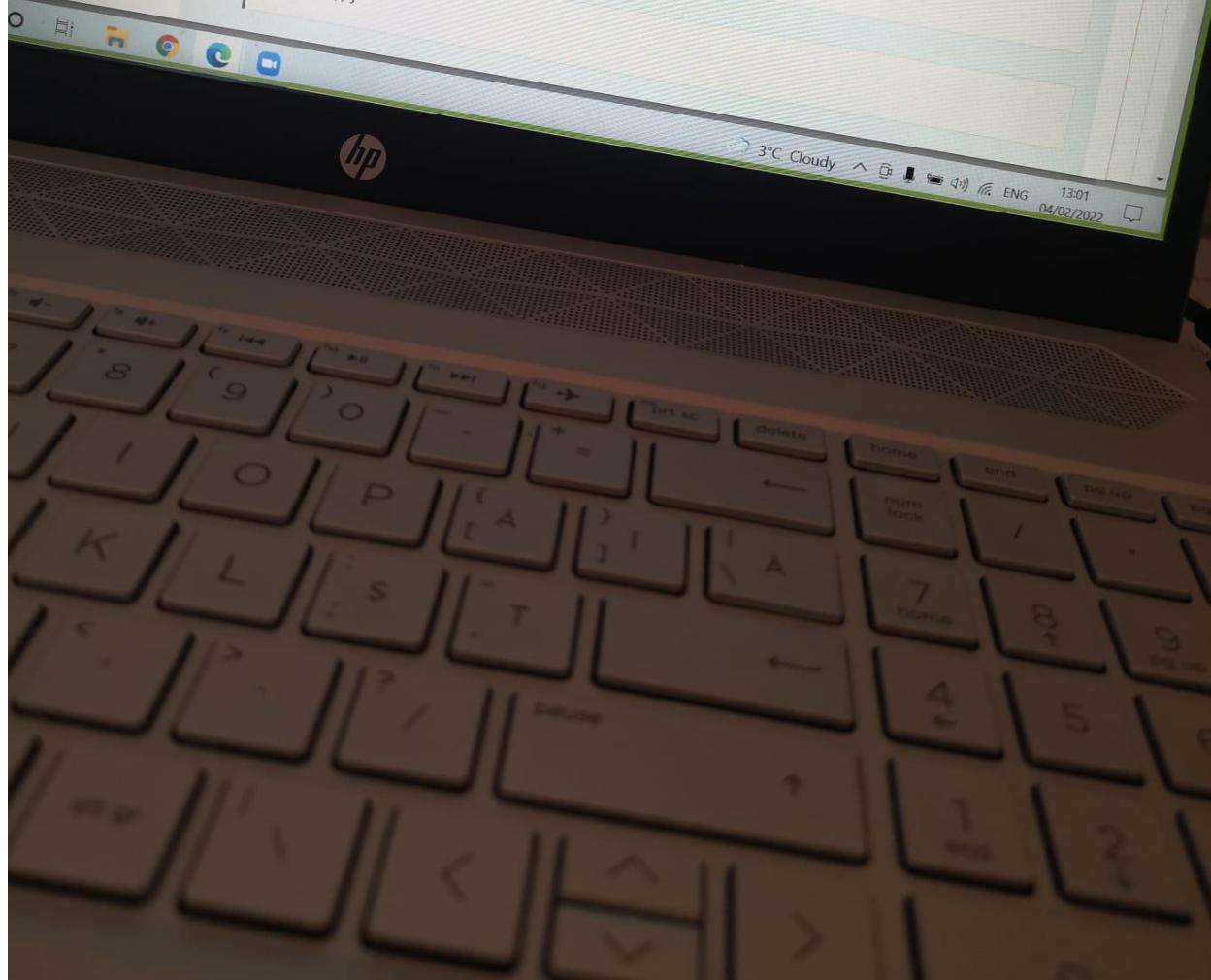
Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor conduce la o eroare de EXECUȚIE a programului când apar la poziția indicată cu /\*AICI\*/?

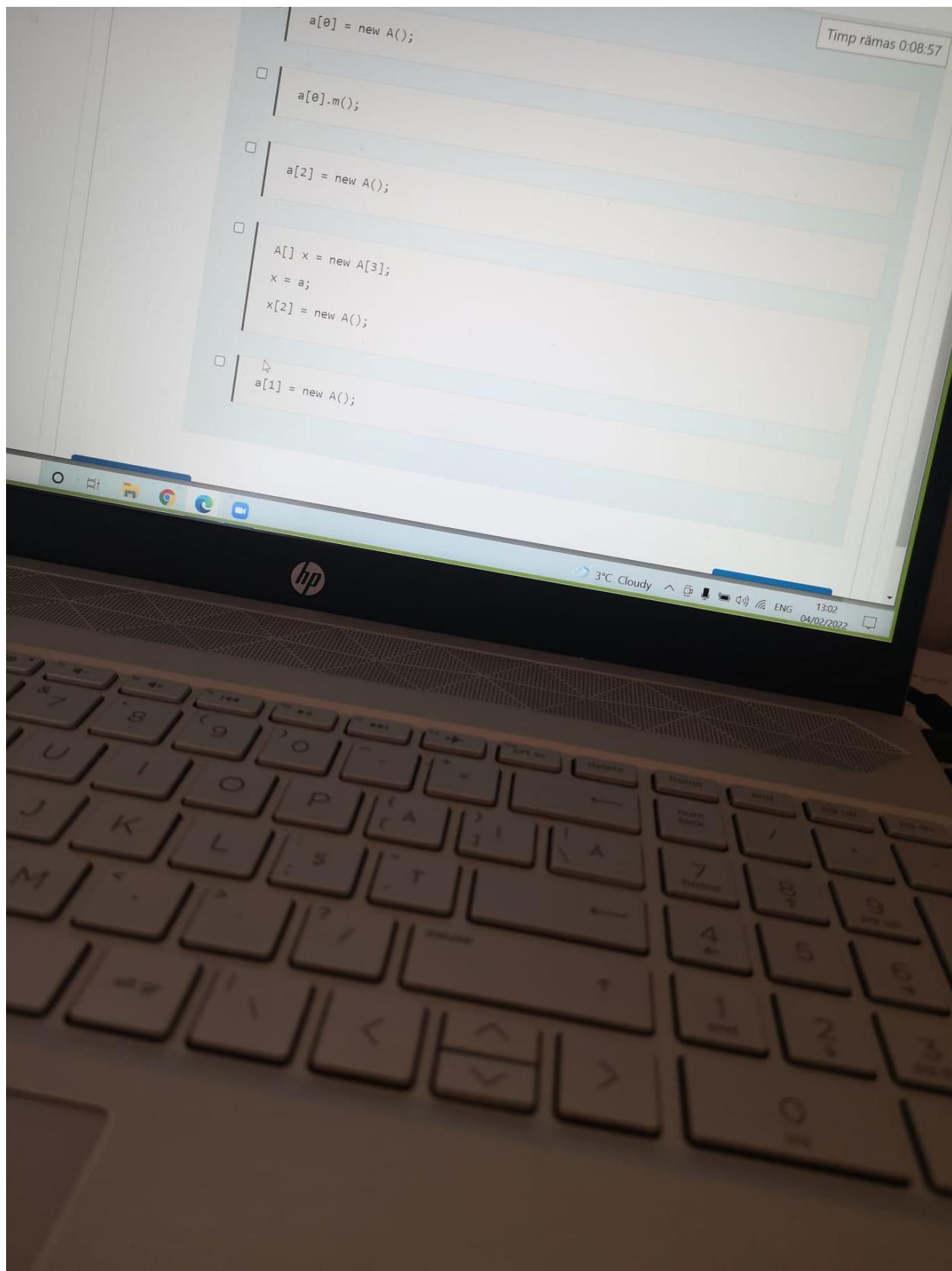
```
class A {
 public void m() {}
 public static void main(String argv[]) {
 A[] a = new A[2];
 /*AICI*/
 }
}
```

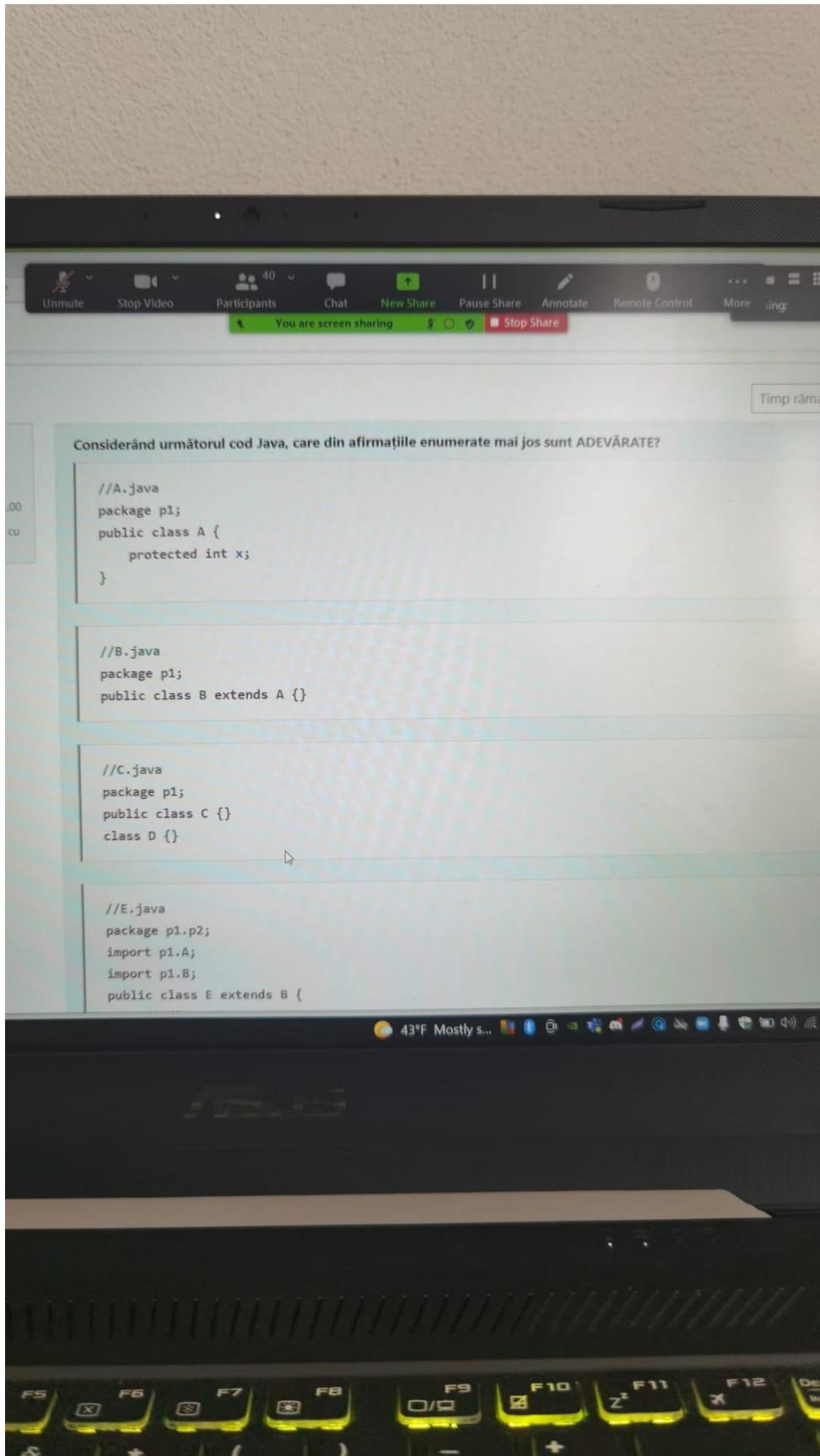
Selectați unul sau mai multe:

| a[0] = new A();

| a[0].m();







The screenshot shows a screen sharing interface within a video conferencing application. At the top, there are controls for Unmute, Stop Video, Participants (40), Chat, New Share, Pause Share, Annotate, Remote Control, More, and Stop Share. A message "You are screen sharing" is displayed. A timer at the top right shows "Timp rămas 0:02:04". The main area displays Java code:

```
class D {}

//E.java
package p1.p2;
import p1.A;
import p1.B;
public class E extends B {
 E() {}
 public void m(A a) {
 //1
 }
 public void n(C c) {} //2
}
```

Below the code, a question asks: "Selectați unul sau mai multe:" followed by five multiple-choice options:

- Clasa **E** poate fi instantiată în orice pachet
- Linia marcată cu //2 conține o eroare de compilare
- La linia marcată cu //1 putem accesa câmpul **x** al obiectului referit de **a**
- Clasele **A** și **B** pot fi implementate în aceeași unitate de compilare, fără să fie necesare alte modificări a programului
- Putem declara referințe de tip **D** doar în cadrul pachetului **p1**

The screenshot shows a Java code editor with the following code:

```
ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului de mai jos?
class X {
 protected static int v = 0;
 public X() { v += 9; }
}
class Y extends X {
}
class Z extends Y {
 public Z() { v += 7; }
 public static int getV() { return v; }
}
class Main {
 public static void main(String argv[]) {
 X x = new Y();
 X y = new Z();
 Z z = new Z();
 System.out.println(Z.getV()); /*
 }
}
```

Below the code, the word "Answer:" is visible.

```
Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului de mai jos?
class Pair {
 private int v;
 private int t[];
 public Pair(int x, int [] y) { v = x; t = y; }
 public void setV(int x, int[] y) { v = x; t = y; }
 public void setVIT(int x, int i, int y) { v = x; t[i] = y; }
 public int getV() { return v; }
 public int[] getT() { return t; }
}
class Main {
 public static Pair call(Pair p, Pair q) {
 q.setVT(48, p.getT());
 q = p;
 q.setVIT(87, 1, 41);
 int tz[] = {93, 81};
 return new Pair(38, tz);
 }
 public static void main(String[] args) {
 int ta[] = {39, 45};
 int tb[] = {11, 76};
 Pair a = new Pair(55, ta);
 Pair b = new Pair(35, tb);
 Pair c = b;
 b = call(a, b);
 System.out.println(c.getV()); /* QUESTION
 }
}
}
```

```
Ce valoare întreagă se va tipări la linia marcată cu /* în urma executiei programului de mai jos?
abstract class A {
 public int proc(A p) { return 98; }
}
class B extends A {
 public int proc(A p) { return 17; }
}
class C extends A {
 public int proc(C p) { return 65; }
}
public class Main {
 public static void main(String argv[]) {
 C x = new C();
 A y = new B();
 C z = new C();
 System.out.println(y.proc(x) + z.proc(x)); /* QUESTION
 }
}
}
```

Answer:



flag question

Ce valoare întreagă se va tipări la linia marcată cu /\* în urma executiei programului de mai jos?

```
class X {
 protected int v = 0;
 public X() { v += 87; }
}

class Y extends X {
 public Y() { v += 94; }
 public int getV() { return v; }
}

class Z extends Y {
 public Z() { v += 46; }
}

class Main {
 public static void main(String argv[]) {
 X x = new Z();
 Y y = new Y();
 Z z = new Z();
 System.out.println(y.getV()); /*
 }
}
```

Answer:

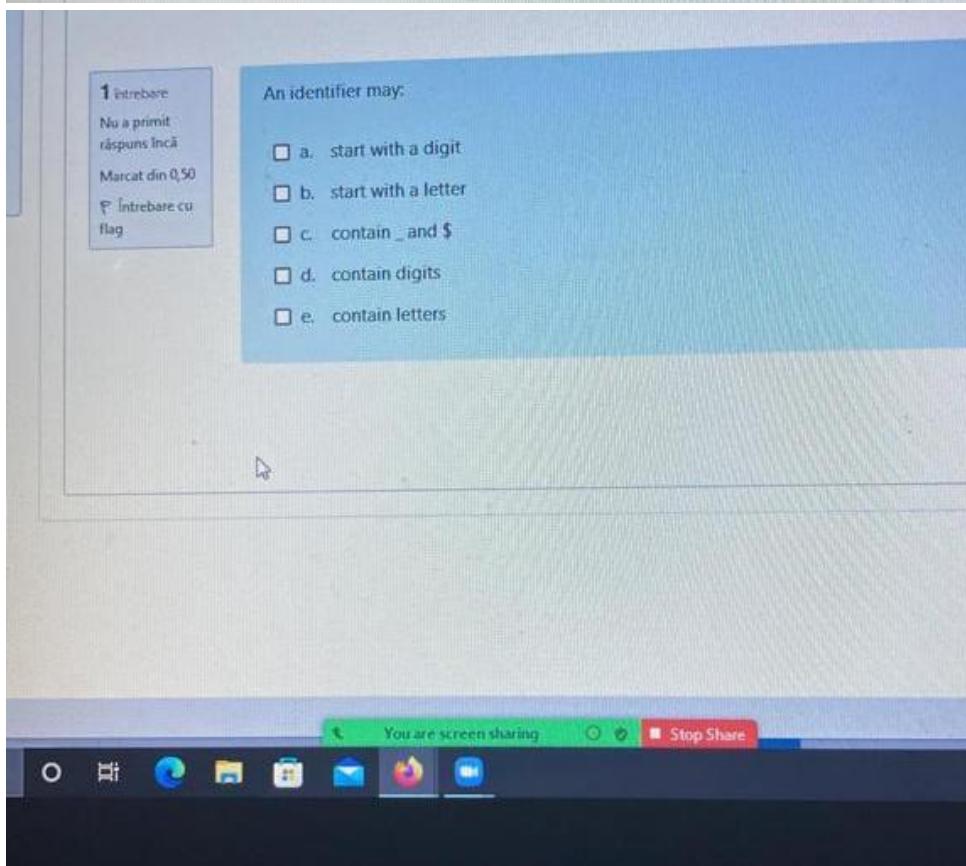
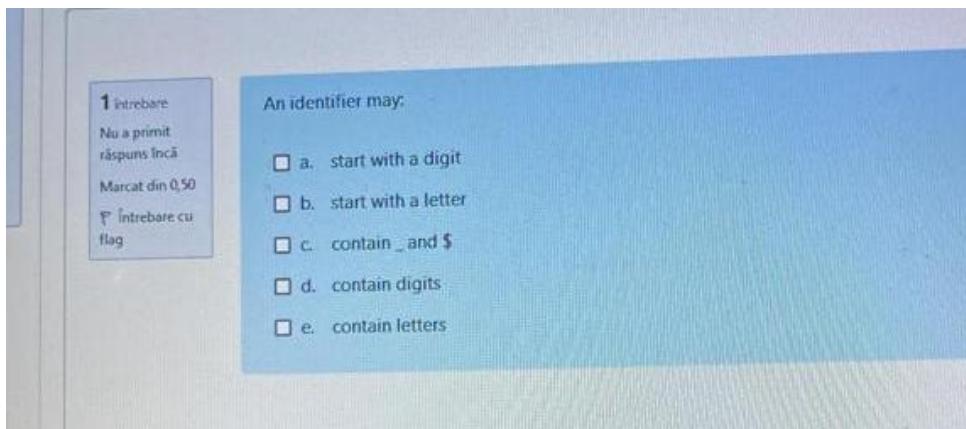
Ce valoare întreagă se va tipări la linia menținută cu /\* în urma executiei programului de mai jos?

```
class Pair {
 private int v;
 private int t[];
 public Pair(int x, int[] y) { v = x; t = y; }
 public void setV(int x, int[] y) { v = x; t = y; }
 public void setVI(int x, int i, int y) { v = x; t[i] = y; }
 public int getV() { return v; }
 public int[] getT() { return t; }
}
class Main {
 public static Pair call(Pair p, Pair q) {
 p.setVI(77, q.getT());
 p = q;
 p.setVIT(46, 1, 58);
 int tz[] = {80, 94};
 return new Pair(50, tz);
 }
 public static void main(String[] args) {
 int ta[] = {16, 55};
 int tb[] = {76, 54};
 Pair a = new Pair(86, ta);
 Pair b = new Pair(24, tb);
 Pair c = b;
 b = call(a, c);
 System.out.println(a.getT()[1]); /*
 }
}
```

Ce valoare întreagă se va tipări la linia menținută cu /\* în urma executiei programului de mai jos?

```
abstract class A {
 public int proc(A p) { return 56; }
}
class B extends A {
 public int proc(A p) { return 73; }
}
class C extends B {
 public int proc(C p) { return 61; }
}
public class Main {
 public static void main(String argv[]) {
 A x = new C();
 B y = new B();
 C z = new C();
 System.out.println(x.proc(z) + y.proc(z)); /*
 }
}
```

Answer:



Question 3  
Not yet  
answered  
Marked out of  
0.50  
Flag question

Identify the type of methods present in the following code:

```
public class Car {
 private double kmDriven;
 public Car() {
 this.kmDriven = 0;
 }
 public Car(double kmDriven) {
 this.kmDriven = kmDriven;
 }
}
```

- a. constructor
- b. accessor: setter
- c. overridden
- d. accessor: getter
- e. overloaded

Identify the type of methods present in the following code:

```
public class Car {
 private double kmDriven;
 public Car(double kmDriven) {
 this.kmDriven = kmDriven;
 }
}
```

```
 public boolean equals(Object aCar) {
 return (aCar instanceof Car) && (((Car)aCar).getKmDriven() == this.kmDriven);
 }
}
```

- a. accessor: getter
- b. constructor
- c. accessor: setter
- d. overridden
- e. overloaded

• întrebare  
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• Marcat din 0,50  
• \* întrebare cu  
• lag

For better code readability, the following should be avoided:

- a. clear and concise names
- b. abstract names
- c. specific names
- d. generic names
- e. comments on constants

3 întrebări  
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lag

You are screen sharing

Raul Stein

Timp rămas 0:19:19

Identify the type of methods present in the following code:

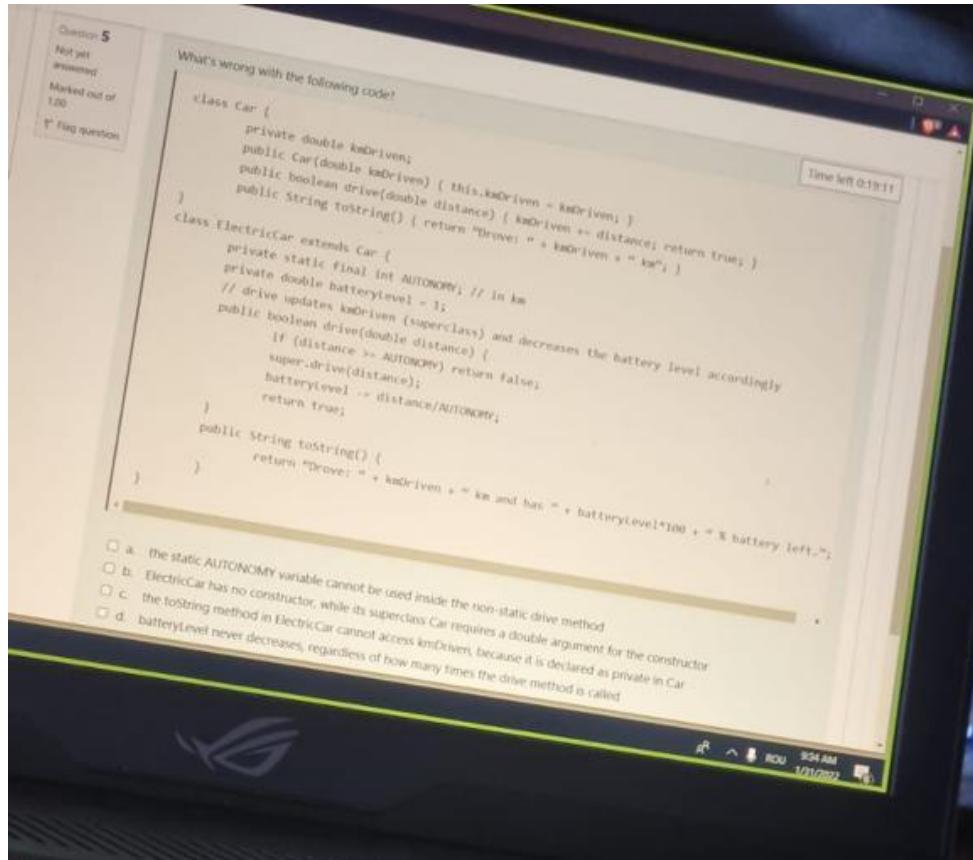
```
public class Car {
 public int drive(double initKm, double distance) {
 return initKm + distance;
 }
 public int drive(double initKm, int hours, double speed) {
 return initKm + hours * speed;
 }
}
```

- a. accessor:setter
- b. overloaded
- c. constructor
- d. overridden
- e. accessor:getter

Pagina următoare

A static final attribute of a class called Clock (please select all that apply, regardless of the class name).

- a. cannot be changed once its value has been initialised
- b. is stored separately for each instance of the Clock class
- c. can be accessed from within static methods of the Clock class
- d. is only stored once for all instances of the Clock class
- e. can be accessed from within non-static methods of the Clock class



What's wrong with the following code?

```
lass Car {
 private double kmDriven;
 public Car(double kmDriven) { this.kmDriven = kmDriven; }
 public boolean drive(double distance) { kmDriven += distance; return true; }
 public String toString() { return "Drove: " + kmDriven + " km"; }

lass ElectricCar extends Car {
 private static final int AUTONOMY; // in km
 private double batteryLevel = 1;
 // drive updates kmDriven (superclass) and decreases the battery level accordingly
 public boolean drive(double distance) {
 if (distance >= AUTONOMY) return false;
 super.drive(distance);
 batteryLevel -= distance/AUTONOMY;
 return true;
 }
 public String toString() {
 return "Drove: " + kmDriven + " km and has " + batteryLevel*100 + " % battery left.";
 }
}
```

- the static AUTONOMY variable cannot be used inside the non-static drive method
- ElectricCar has no constructor, while its superclass Car requires a double argument for the constructor
- the final AUTONOMY variable needs to be initialised
- the toString method in ElectricCar cannot access kmDriven, because it is declared as private in Car
- batteryLevel never decreases, regardless of how many times the drive method is called

In which classes is it allowed to access this.battery without getting any compile error?

```
class Car {
 protected double kmDriven;
 public Car() { this.kmDriven = 0; }
}
class ElectricCar extends Car {
 protected Battery battery;
 public ElectricCar() { this.battery = new Battery(); }
}
class HybridCar extends ElectricCar { ... }
class Motorcycle { ... }
class HarleyDavidson extends Motorcycle { ... }
```

- a. Motorcycle
- b. ElectricCar
- c. HybridCar
- d. HarleyDavidson
- e. Car

You are screen sharing.

Stop Share

Question 4  
Not yet answered  
Marked out of  
0.50  
 Flag question

It is recommended that a modular system is decomposed into a set of:

- a. tightly coupled modules
- b. inconsistent modules
- c. cohesive modules
- d. loosely coupled modules
- e. divergent modules

Identify the type of methods present in the following code:

```
public class Car {
 private double kmDriven;
 public Car() {
 this.kmDriven = 0;
 }
 public Car(double kmDriven) {
 this.kmDriven = kmDriven;
 }
}
```



- a. constructor
- b. overridden
- c. overloaded
- d. accessor: getter
- e. accessor: setter

A screenshot of a computer monitor displaying a Java code editor and a list of multiple-choice questions. The code editor shows two classes: `Car` and `ElectricCar`. The `Car` class has a private `kmDriven` variable, a constructor taking `kmDriven`, a `drive` method returning `true` if `kmDriven` is less than or equal to the argument, and a `toString` method. The `ElectricCar` class extends `Car` and adds a static final `AUTONOMY` variable (1), a `batteryLevel` variable initialized to 1, and a `drive` method that updates `kmDriven` and decreases `batteryLevel` by `distance/AUTONOMY`. It also overrides the `toString` method to include `batteryLevel`. Below the code is a list of five multiple-choice questions (a-e) about the class behavior.

```
class Car {
 private double kmDriven;
 public Car(double kmDriven) { this.kmDriven = kmDriven; }
 public boolean drive(double distance) { kmDriven += distance; return true; }
 public String toString() { return "Drove: " + kmDriven + " km"; }
}

class ElectricCar extends Car {
 private static final int AUTONOMY; // in km
 private double batteryLevel = 1;
 // drive updates kmDriven (superclass) and decreases the battery level accordingly
 public boolean drive(double distance) {
 if (distance >= AUTONOMY) return false;
 super.drive(distance);
 batteryLevel -= distance/AUTONOMY;
 return true;
 }
 public String toString() {
 return "Drove: " + kmDriven + " km and has " + batteryLevel*100 + "% battery le";
 }
}
```

- a. the `toString` method in `ElectricCar` cannot access `kmDriven`, because it is declared as private in `Car`
- b. `batteryLevel` never decreases, regardless of how many times the `drive` method is called
- c. the static `AUTONOMY` variable cannot be used inside the non-static `drive` method
- d. `ElectricCar` has no constructor, while its superclass `Car` requires a double argument for the constructor
- e. the final `AUTONOMY` variable needs to be initialised

You are screen sharing Stop Share Rain/snow acer

**Question 6**

Not yet  
answered

Marked out of  
0.50

Flag question

In which classes is it allowed to access this.battery without getting any compile error?

```
class Car {
 protected double kmDriven;
 public Car() { this.kmDriven = 0; }
}
class ElectricCar extends Car {
 protected Battery battery;
 public ElectricCar() { this.battery = new Battery(); }
}
class HybridCar extends ElectricCar { ... }
class Motorcycle { ... }
class HarleyDavidson extends Motorcycle { ... }
```

- a. HybridCar
- b. HarleyDavidson
- c. ElectricCar
- d. Motorcycle
- e. Car

Time left

Next p



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What's wrong with the following code?

```
class Car {
 private double kmDriven;
 public Car(double kmDriven) { this.kmDriven = kmDriven; }
 public boolean drive(double distance) { kmDriven += distance;
 public String toString() { return "Drove: " + kmDriven + " km";
}
class ElectricCar extends Car {
 private static final int AUTONOMY; // in km
 private double batteryLevel = 1;
 // drive updates kmDriven (superclass) and decreases the battery level
 public boolean drive(double distance) {
 if (distance >= AUTONOMY) return false;
 super.drive(distance);
 batteryLevel -= distance/AUTONOMY;
 return true;
 }
 public String toString() {
 return "Drove: " + kmDriven + " km and has " + batteryLevel + "% left";
 }
}
```

- a. the final AUTONOMY variable needs to be initialised
- b. ElectricCar has no constructor, while its superclass Car requires a double argument for kmDriven
- c. the toString method in ElectricCar cannot access kmDriven, because it is declared as private in Car
- d. the static AUTONOMY variable cannot be used inside the non-static drive method
- e. batteryLevel never decreases, regardless of how many times the drive method is called

119

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In which classes is it allowed to access this.battery without getting any compile errors?

```
class Car {
 protected double kmDriven;
 public Car() { this.kmDriven = 0; }
}

class ElectricCar extends Car {
 protected Battery battery;
 public ElectricCar() { this.battery = new Battery(); }
}

class HybridCar extends ElectricCar { ... }
class Motorcycle { ... }
class HarleyDavidson extends Motorcycle { ... }
```

- a. Car
- b. HarleyDavidson
- c. Motorcycle
- d. HybridCar
- e. ElectricCar



119

What is wrong with the following code?

```
class Car {
 private double kmDriven;
 public Car(double kmDriven) { this.kmDriven = kmDriven; }
 public boolean drive(double distance) { kmDriven += distance; return true; }
 public String toString() { return "Drove: " + kmDriven + " km"; }
}

class ElectricCar extends Car {
 private static final int AUTONOMY; // in km
 private double batteryLevel = 1;
 // drive updates kmDriven (superclass) and decreases the battery level accordingly
 public boolean drive(double distance) {
 if (distance >= AUTONOMY) return false;
 super.drive(distance);
 batteryLevel -= distance/AUTONOMY;
 return true;
 }
 public String toString() {
 return "Drove: " + kmDriven + " km and has " + batteryLevel*100 + "% battery left.";
 }
}
```

a. the `toString` method in `ElectricCar` cannot access `kmDriven`, because it is declared as `private` in `Car`

b. `ElectricCar` has no constructor, while its superclass `Car` requires a double argument for the constructor

c. the static `AUTONOMY` variable cannot be used inside the non-static `drive` method

d. the final `AUTONOMY` variable needs to be initialised

e. `batteryLevel` never decreases, regardless of how many times the `drive` method is called

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    has a great  
    access level  
    Access  
    Level  
    • Local  
    •

Polymorphism is based on:

- a. Early Binding
- b. Encapsulation
- c. Method Overloading
- d. Late Binding
- e. Type Inheritance

It is recommended that a modular system is decomposed into a set of

- a. loosely coupled modules
- b. divergent modules
- c. cohesive modules
- d. tightly coupled modules
- e. inconsistent modules

What will be displayed when running the following code?

```
class SuperClass {
 public SuperClass() {
 System.out.println("Constructor from SuperClass");
 methodCall();
 }
 public void methodCall() { System.out.println("Method from SuperClass"); }
}
class SubClass extends SuperClass {
 public SubClass() { System.out.println("Constructor from SubClass"); }
 public void methodCall() { System.out.println("Method from SubClass"); }
}
public class Client {
 public static void main(String[] args) {
 SubClass s = new SubClass();
 }
}
```

- a. Constructor from SuperClass  
Constructor from SubClass  
Method from SuperClass
- b. Constructor from SuperClass  
Constructor from SubClass  
Method from SubClass
- c. Constructor from SubClass  
Constructor from SuperClass  
Method from SuperClass
- d. Constructor from SuperClass

You are screen sharing 

Rain/snow   

```
public Car(double kmDriven) { this.kmDriven = kmDriven; }
public boolean drive(double distance) { kmDriven += distance; }
public String toString() { return "Drove: " + kmDriven + " km"; }
}

class ElectricCar extends Car {
 private static final int AUTOMONY; // in km
 private double batteryLevel = 1;
 // drive updates kmDriven (superclass) and decreases the battery level
 public boolean drive(double distance) {
 if (distance >= AUTOMONY) return false;
 super.drive(distance);
 batteryLevel -= distance/AUTOMONY;
 return true;
 }
 public String toString() {
 return "Drove: " + kmDriven + " km and has " + batteryLevel;
 }
}
```

- a. batteryLevel never decreases, regardless of how many times the drive method is called
- b. the static AUTOMONY variable cannot be used inside the non-static drive method
- c. ElectricCar has no constructor, while its superclass Car requires a double argument for kmDriven
- d. the final AUTOMONY variable needs to be initialised
- e. the toString method in ElectricCar cannot access kmDriven, because it is declared as final

What will be displayed when running the following code?

```
class SuperClass {
 public SuperClass() {
 System.out.println("Constructor from SuperClass");
 methodCall();
 }
 public void methodCall() { System.out.println("Method from SuperClass"); }
}
class SubClass extends SuperClass {
 public SubClass() { System.out.println("Constructor from SubClass"); }
 public void methodCall() { System.out.println("Method from SubClass"); }
}
public class Client {
 public static void main(String[] args) {
 SubClass s = new SubClass();
 }
}
```

- a. Constructor from SuperClass  
Constructor from SubClass  
Method from SuperClass
- b. Constructor from SuperClass  
Constructor from SubClass  
Method from SubClass
- c. Constructor from SubClass  
Constructor from SuperClass  
Method from SuperClass
- d. Constructor from SuperClass  
Method from SuperClass  
Constructor from SubClass
- e. Constructor from SuperClass  
Method from SubClass  
Constructor from SubClass

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e cu

An abstract class:

- a. may not contain abstract methods
- b. may not be instantiated
- c. is required to contain at least one abstract method
- d. may be instantiated
- e. that contains abstract methods needs each of its subclasses to either implement or inherit them

7 8

Question 6

Not yet  
answered

Marked out of  
0.50

Flag  
question

Polymorphism is based on:

- a. Method Overloading
- b. Type Inheritance
- c. Late Binding
- d. Encapsulation
- e. Early Binding

How many items in the format "Age: <number>" will be displayed and why?

```
import java.util.HashSet;
class Student {
 private int age;
 public Student(int age) { this.age = age; }
 public boolean equals(Object o) {
 return (o instanceof Student) && (age == ((Student)o).age); }
 public String toString() { return "Age: " + age; }
}
public class Client {
 public static void main(String args[]) {
 Student s1 = new Student(22);
 Student s2 = new Student(23);
 Student s3 = new Student(22);
 Student s4 = new Student(22);

 HashSet<Student> set = new HashSet<Student>(3);
 set.add(s1); set.add(s2); set.add(s3); set.add(s4);
 System.out.println(set);
 }
}
```

- a. 2 because the HashSet only stores the unique values for the age
- b. 3 because of new HashSet<Student>(3)
- c. 2 because there are only two different values and the Student class has the equals method overridden accordingly
- d. 4 because the equals method is overloaded, not overridden, so it is not considered
- e. 4 because the hash code default implementation provides different values, regardless of the age data member of



Select all statements that are true:

- a. HashSet keeps all added elements.
- b. TreeSet only keeps the unique elements among those that are added.
- c. HashSet only keeps the unique elements among those that are added.
- d. LinkedList keeps all added elements.
- e. LinkedList only keeps the unique elements among those that are added.

What's wrong with the following code?

```
class BaseException extends Exception { }
class DerivedException extends BaseException { }
class SpecializedException extends RuntimeException { }

class ExceptionThrower {
 public void method1() { throw new DerivedException(); }
 public void method2() { throw new SpecializedException(); }
}

class Client {
 public static void main(String args[]) {
 ExceptionThrower e = new ExceptionThrower();
 try {
 e.method1();
 e.method2();
 } catch (BaseException e1) { }
 catch (DerivedException e2) { }
 }
}
```

- a. an additional catch section is required to catch SpecializedException, since this is an unhandled exception
- b. DerivedException is caught by the first catch section
- c. method1 needs to declare that it throws DerivedException, since this is a checked exception
- d. BaseException is never thrown, so it should not be caught
- e. method2 needs to declare that it throws SpecializedException, since this is an unhandled exception

ning

11 întrebare

Nu a primit  
răspuns încă

Marcat din 0,50

Întrebare cu  
flag

Select all statements that are true:

- a. LinkedList keeps all added elements.
- b. TreeSet only keeps the unique elements among those that are added.
- c. LinkedHashSet keeps all added elements.
- d. HashSet only keeps the unique elements among those that are added.
- e. LinkedList only keeps the unique elements among those that are added.

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How many items in the format "Age: <number>" will be displayed and why?

```
import java.util.HashSet;
class Student {
 private int age;
 public Student(int age) { this.age = age; }
 public boolean equals(Object o) {
 return ((o instanceof Student) && (age == ((Student)o).age));
 }
 public String toString() { return "Age: " + age; }
}
public class Client {
 public static void main(String args[]) {
 Student s1 = new Student(22);
 Student s2 = new Student(23);
 Student s3 = new Student(22);
 Student s4 = new Student(22);

 HashSet<Student> set = new HashSet<Student>(3);
 set.add(s1); set.add(s2); set.add(s3); set.add(s4);
 System.out.println(set);
 }
}
```

- a. 4 because the hash code default implementation provides different values. Regardless of the age value, each student object will have a unique hash code.
- b. 2 because there are only two different values and the Student class has the equals method overridden.
- c. 4 because the equals method is overloaded, not overridden, so it is not considered when determining uniqueness.
- d. 3 because of new HashSet<Student>(3)
- e. 2 because the HashSet only stores the unique values for the age

ing

**11 întrebare**  
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Select all statements that are true:

- a. LinkedList keeps all added elements.
- b. TreeSet only keeps the unique elements among those that are added.
- c. LinkedHashSet keeps all added elements.
- d. LinkedList only keeps the unique elements among those that are added.
- e. HashSet only keeps the unique elements among those that are added.

Question 6  
Correct  
Mark 0.50 out of 0.50  
Flag question  
Edit question

Polymorphism is based on:

- a. Method Overloading
- b. Late Binding
- c. Early Binding
- d. Encapsulation
- e. Type Inheritance



Your answer is correct.

The correct answers are: Type Inheritance, Late Binding

Make comment or override mark

Response history



For better code readability, the following T should be avoided:

- a. generic names
- b. clear and concise names
- c. specific names
- d. comments on constants
- e. abstract names

The correct answers are:

generic names,

abstract names

Make comment or override mark

#### Response history

An abstract class:

- a. may not contain abstract methods 
- b. that contains abstract methods needs each of its subclasses to either implement all abstract methods or abstract themselves (the subclasses)
- c. may be instantiated
- d. may not be instantiated
- e. is required to contain at least one abstract method

The correct answers are:

may not be instantiated,

that contains abstract methods needs each of its subclasses to either implement all abstract methods or be declared themselves (the subclasses)

Make comment or override mark

**Question 3**

Incorrect

Mark 0.00 out of  
0.50

Flag question

 Edit  
question

Identify the type of methods present in the following code:

```
public class Car {
 private double kmDriven;
 public Car() {
 this.kmDriven = 0;
 }
 public Car(double kmDriven) {
 this.kmDriven = kmDriven;
 }
}
```

- a. constructor
- b. overloaded
- c. accessor: setter
- d. accessor: getter
- e. overridden



The correct answers are: overloaded, constructor

Campus Virtual - CV  
Navigare în test

Înapoi

8 întrebare  
Răspuns salvat  
Marcat din 1.00  
 Întrebare cu flag

Ce valoare întreagă se va tipări la linia marcată cu //\* în urma executiei programului de mai jos?

```
class A {
 public int m(A p) { return 24; }
 public int n(A p) { return 49; }
}
class B extends A {
 public int m(B p) { return 2; }
 public int n(A p) { return 38; }
}
class C extends A {
 public int m(A p) { return 8; }
 public int n(A p) { return 47; }
}
class D extends A {
 public int m(A p) { return 33; }
 public int n(D p) { return 12; }
}
class Main {
 public static void main(String argv[]) {
 A x = new C();
 A y = new D();
 D z = new D();
 System.out.println(x.n(z) + y.m(z));/*
 }
}
```

Răspuns: 80

Din 100 procente

## are orientata pe obiecte

Înapoi

7 Intrebare  
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răspuns încă  
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Ce valoare întreagă se va tipări la linia marcată cu /\* în urma execuției programului de mai jos?

```
class A {
 private int x;
 private static int y[];
 public A(int x1, int [] y1) { x = x1; y = y1; }
 public void setXY(int x1, int[] y1) { x = x1; y = y1; }
 public void setInY(int x1, int i, int y1) { x = x1; y[i] = y1; }
 public int getX() { return x; }
 public int[] getY() { return y; }
}
class Main {
 public static A m(A z, A t) {
 z.setXY(33, t.getY());
 z = t;
 z.setInY(28, 1, 52);
 int tv[] = {43, 82};
 return new A(62, tv);
 }
 public static void main(String[] args) {
 int ta[] = {72, 4};
 int tb[] = {15, 85};
 A a = new A(35, ta);
 A b = new A(51, tb);
 A c = b;
 b = m(a, b);
 System.out.println(c.getX() + a.getY()[0]); /*
 }
}
```

## are orientata pe obiecte

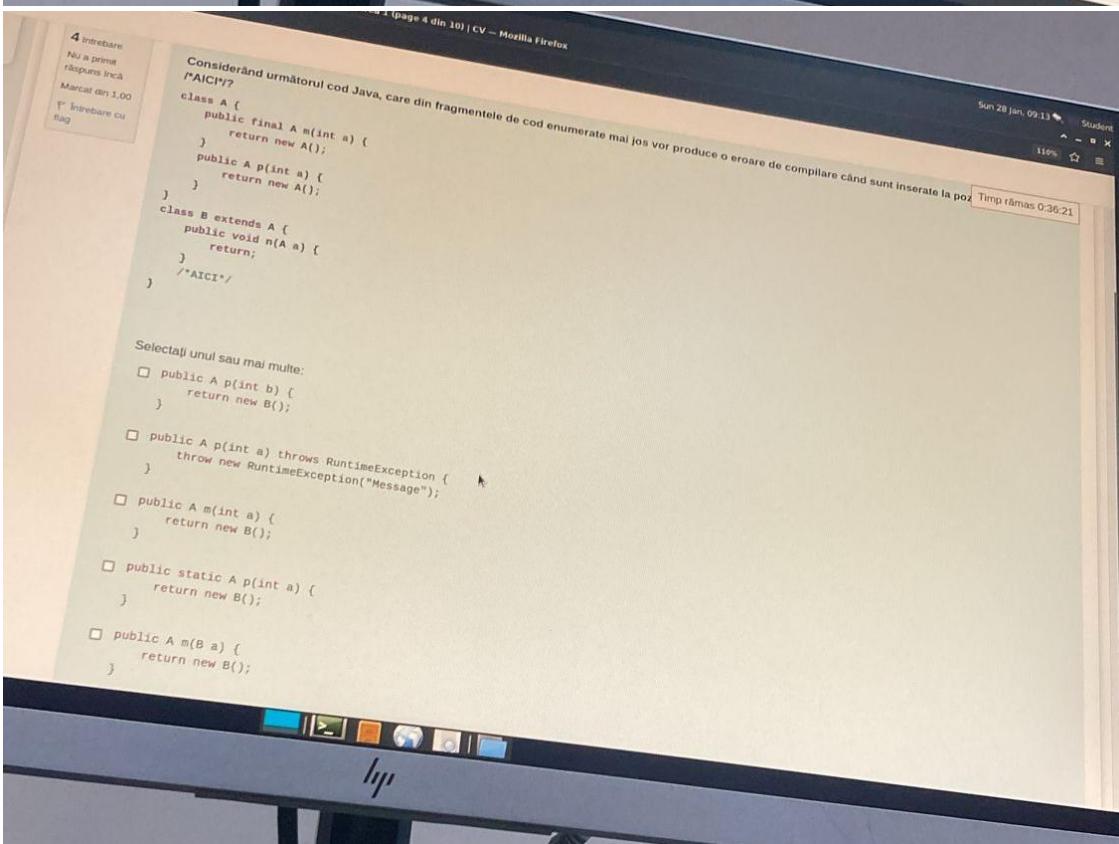
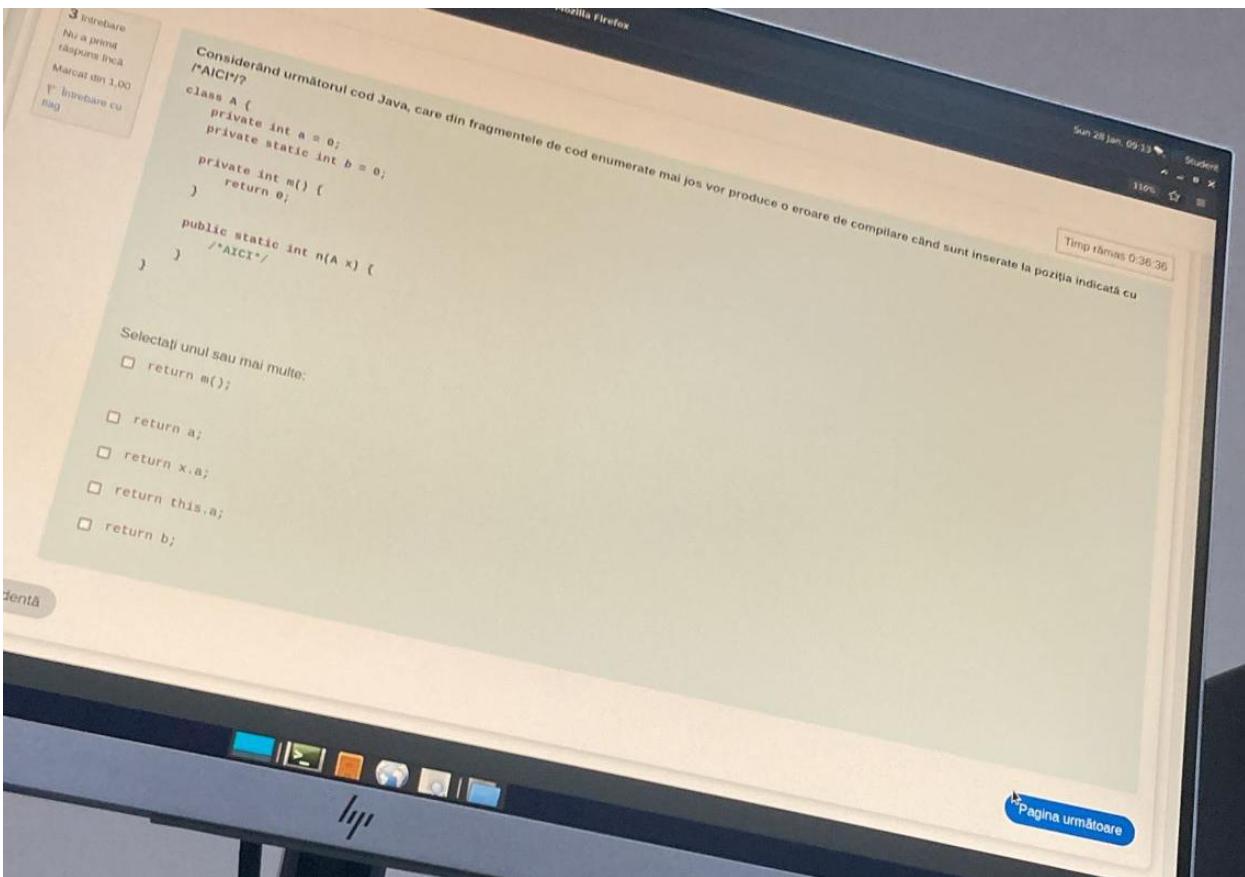
Înapoi

6 Intrebare  
Răspuns salvat  
Marcat din 1,00  
F Intrebare cu  
flag

Ce valoare întreagă se va tipări la linia marcată cu /\* în urma execuției programului de mai jos?

```
class A {
 protected int x = 0;
 public A() { x += 6; }
 public int getX() { return x; }
}
class B extends A {
 public B() { x += 47; }
}
class C extends A {
 public C() { x += 50; }
}
class Main {
 public static void main(String argv[]) {
 A a = new C();
 B b = new B();
 C c = new C();
 System.out.println(b.getX());/*
 }
}
```

Răspuns: 53



Concursul olimpic de Java, care din fragmentele de cod enumerate mai jos vor produce o scrisoare cu numele celor două locuri la prima indicație cu "A" și la

Time rămas: 0:13:22

```
contract class A {
 public void a(int n) {}
 public void p(int n) {}
}
class B extends A {
 public void a(int n) {}
 public void p(int n) {}
 public void q(int n) {}
}
class C extends A {
 public void a(int n) {}
 public void p(int n) {}
 public void r(int n, int s) {}
}
class Main {
 public static void main(String args[]) {
 A a = new B();
 C c = new C();
 //AICI*
 }
}
```

Selectați una sau mai multe:

- a.a(1);
- a.p(1);
- c.equals(a);
- a.p(1);
- c.r(1);

precedentă

Concursul olimpic de Java, care din fragmentele de cod enumerate mai jos vor produce o scrisoare cu numele celor două locuri la prima indicație cu "A" și la

```
class A {
 protected void a() {}
 protected void b() {} // nu poate fi accesat de la A
 protected void c() {} // nu poate fi accesat de la A
 protected void d() {} // nu poate fi accesat de la A
}
class B {
 protected A a;
 protected B() {} // nu poate fi accesat de la B
 protected void e() {} // nu poate fi accesat de la B
 protected void f() {} // nu poate fi accesat de la B
}
class Main {
 public static void main(String args[]) {
 A a = new A();
 A.b();
 A.c();
 A.d();
 B b = new B();
 B.e();
 B.f();
 B.a();
 B.b();
 B.c();
 B.d();
 System.out.println("Locul 1: " + a.a() + " Locul 2: " + b.a());
 }
}
```

9 Întrebare

Răspuns salvat

Marcat din 1,00

F Întrebare cu flag

Ce valoare întreagă se va tipări la linia marcată cu /\* în urma execuției programului de mai jos?

```
class Ex extends RuntimeException {}
class Main {
 public static void m(int x) throws Ex {
 if(x == 0) throw new Ex();
 }
 public static void main(String argv[]) {
 int a = 4;
 for(int i = 0; i < 3; i++) {
 try {
 m(i);
 a = a + 2;
 } catch(Ex e) {
 a++;
 } finally {
 a++;
 }
 }
 System.out.println(a);/*
 }
}
```

Răspuns: 10

Nu a primit  
răspuns încă  
Marcat din 1,00  
F Întrebare cu flag

Considerând următorul cod Java, care din fragmentele de cod enumerate mai jos vor produce o eroare de compilare când sunt inserate la poz /\*AICI\*/?

```
interface I {
 public void g();
}
interface J extends I {
 public void h();
}
abstract class A implements I {
 public void m() {}
}
class B extends A implements J {
 public void p() {}
 public void g() {}
 public void h() {}
}
class Main {
 public void doSomething(I i, J j) {
 A a = new B();
 B b = new B();
 /*AICI*/
 }
}
```

Selectați unul sau mai multe:

- b.m();
- if (i instanceof B) {  
 i.m();  
}
- ((A)i).p();
- ((B)j).m();
- ((J)a).h();

Sun 28 Jan, 09:13

110%

Timp rămas 0:37:1