



Universidad Autónoma De Tamaulipas

Fundamentos de Programación

1-N

Tarea 09

Molina Meneses Diego

Videos del 007 al 013

The screenshot shows a Java development environment with the following details:

- Projects View:** Shows several projects: a2241330016_practica4, a2241330016_practica5, a2241330016_practica6, and a Source Packages folder containing a2241330016_practica6 which contains multiple Java files like ejercicio02_mc.java, ejercicio02_mc_cuadrodialogo.java, etc.
- Source Editor:** The file `primerprograma.java` is open, displaying the following code:

```
1 package a2241330016_practica6;
2 public class primerprograma {
3     public static void main(String[] args) {
4         System.out.println("Hola Mundo ");
5     }
6 }
7
```
- Output Window:** Shows the run output for project `a2241330016_practica6`. It displays:

```
run:
Hola Mundo
BUILD SUCCESSFUL (total time: 0 seconds)
```

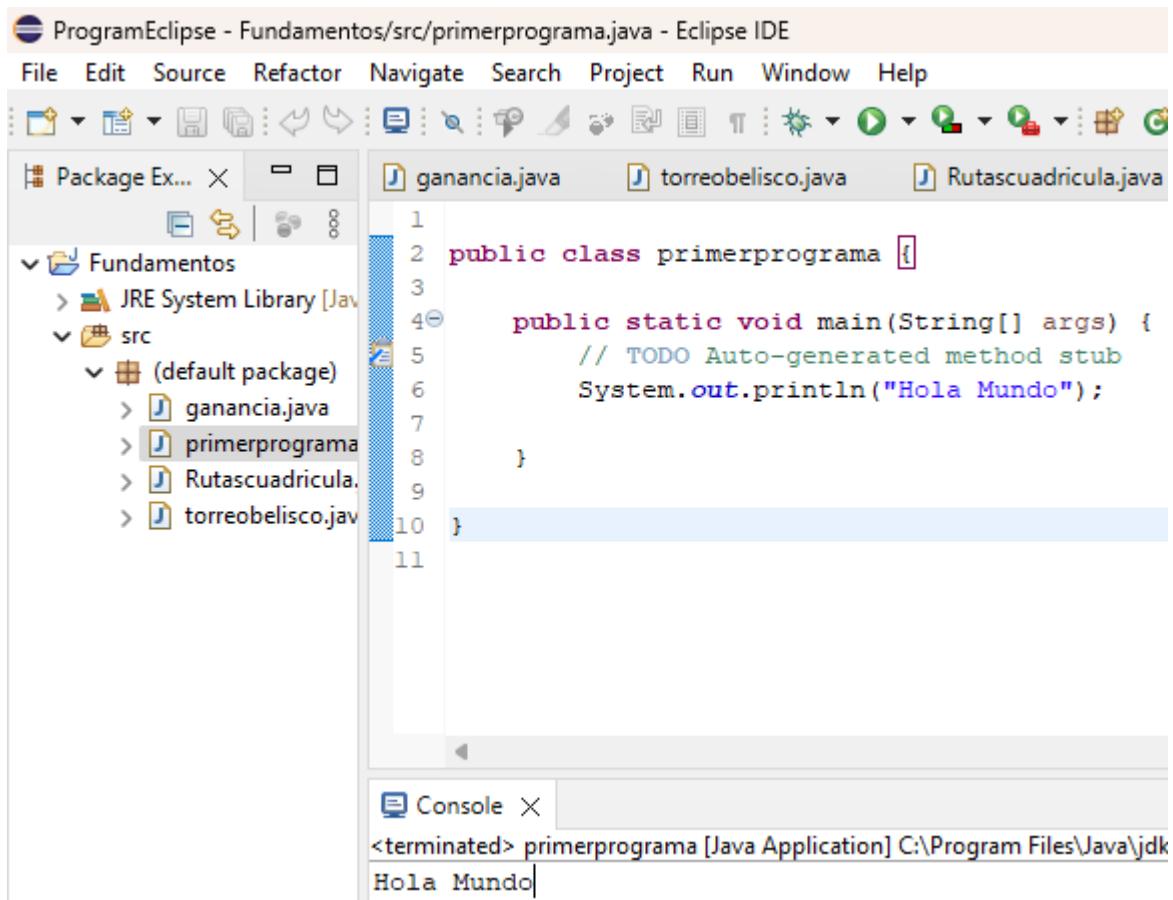
ProgramEclipse - Fundamentos/src/primerprograma.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

ganancia.java torreobelisco.java Rutascuadricula.java

1
2 public class primerprograma {
3
4 public static void main(String[] args) {
5 // TODO Auto-generated method stub
6 System.out.println("Hola Mundo");
7 }
8 }
9
10 }
11

Console X
<terminated> primerprograma [Java Application] C:\Program Files\Java\jdk
Hola Mundo|



ProgramEclipse - Fundamentos/src/primerproyecto.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer ganancia.java torreobelisco.java Rutascuadricula.java

Fundamentos

JRE System Library [Java]

src

(default package)

ganancia.java primerprograma.java primerproyecto.java Rutascuadricula.java torreobelisco.java

```
1
2 public class primerproyecto {
3
4     public static void main(String[] args) {
5         // TODO Auto-generated method stub
6         System.out.println("2 * 1 = 2");
7         System.out.println("2 * 2 = 4");
8         System.out.println("2 * 3 = 6");
9         System.out.println("2 * 4 = 8");
10        System.out.println("2 * 5 = 10");
11    }
12
13 }
14
```

Console

```
<terminated> primerproyecto [Java Application] C:\Program Files\Java\jdk
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
```

The screenshot shows a Java development environment with the following interface elements:

- Toolbar:** Standard file operations (File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help) and various tool icons.
- Projects View:** Shows several projects: a2241330016_practica4, a2241330016_practica5, a2241330016_practica6, FundamentosdeProgramacionJ, FundamentosProgramacionN (selected), Source Packages, fundamentosprogramacionn (selected), primerprojeto.java (selected), Libraries, and Prog_001.
- Start Page:** Displays the file `primerprojeto.java`. The code prints the multiplication table of 2 from 1 to 5.

```
package fundamentosprogramacionn;

public class primerprojeto {
    public static void main(String[] args) {
        System.out.println("2 * 1 = 2");
        System.out.println("2 * 2 = 4");
        System.out.println("2 * 3 = 6");
        System.out.println("2 * 4 = 8");
        System.out.println("2 * 5 = 10");
    }
}
```
- Output - FundamentosProgramacionN (run):** Shows the execution results:

```
run:
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
BUILD SUCCESSFUL (total time: 0 seconds)
```

PSeInt

Archivo Editar Configurar Ejecutar Ayuda

identificadores.psc X

```

1 Algoritmo identificadores
2   Definir altural , basel , areal Como Entero
3   Definir altura2 , base2 , area2 Como Real
4   Definir area3 Como Real
5
6   altural = 5;
7   basel = 5;
8
9   area1 = basel * altural;
10  Escribir "El area de un rectangulo de altura" , altural , " "
11  Escribir "Base:" , basel , " "
12  Escribir " " , areal
13
14  altura2 = altural
15  base2 = basel
16  area2 = base2 * altura2;
17  Escribir "El area de un rectangulo de altura" , altura2 , " "
18  Escribir "Base:" , base2 , " "
19  Escribir " " , area2
20
21  area3 = basel * altura2;
22  Escribir "El area de un rectangulo de altura" , altura2 , " "
23  Escribir "Base:" , basel , " "
24  Escribir " " , area3
25
26 FinAlgoritmo

```

PSeInt - Ejecutando proceso IDENTIFICADORES

*** Ejecución Iniciada. ***

El área de un rectangulo de altura5
Base:5
= 25
El área de un rectangulo de altura5
Base:5
= 25
El área de un rectangulo de altura5
Base:5
= 25
*** Ejecución Finalizada. ***

No cerrar esta ventana Siempre visible Reiniciar

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help FundamentosProgramacionN - Apache NetBeans

Projects X Start Page X primerproyecto.java X identificadores.java X

Source History

```

1 package fundamentosprogramacionn;
2
3 public class identificadores {
4     public static void main(String[] args) {
5         // TODO Auto-generated method stub
6         int altural, basel, areal;
7         double altura2, base2, area2;
8         double area3;
9
10        altural = 5;
11        basel = 5;
12
13        areal = basel * altural;
14        System.out.println("El area de un rectangulo de altura" + altural + " ");
15        System.out.println("Base:" + basel + " ");
16        System.out.println(" = " + areal);
17
18        altura2 = altural;
19        base2 = basel;
20
21        area2 = base2 * altura2;
22        System.out.println("El area de un rectangulo de altura" + altura2 + " ");
23        System.out.println("Base:" + base2 + " ");
24        System.out.println(" = " + area2);
25
26        area3 = basel * altura2;
27        System.out.println("El area de un rectangulo de altura" + altura2 + " ");
28        System.out.println("Base:" + basel + " ");
29        System.out.println(" = " + area3);
30    }
31 }

```

Output - FundamentosProgramacionN (run)

```

run:
El area de un rectangulo de altura5
Base:5
= 25
El area de un rectangulo de altura5.0
Base:5.0
= 25.0
El area de un rectangulo de altura5.0
Base:5
= 25.0
BUILD SUCCESSFUL (total time: 0 seconds)

```

The screenshot shows a Java project named "FundamentosProgramacionN" with a source package containing three files: "operadores.java", "identificadores.java", and "primerproyecto.java". The "operadores.java" file contains the following code:

```
1 package fundamentosprogramacionn;
2
3 public class operadores {
4     public static void main(String[] args) {
5         int residuo;
6         double division;
7
8         division = 125 / 5;
9         System.out.println("La division de 15 / 6 = " + division);
10
11         residuo = 125 % 5;
12         System.out.println("El residuo de 15%6 = " + residuo);
13     }
14 }
15
```

The screenshot shows the PSeInt environment. On the left, there is an algorithmic editor with a file named "operadores.psc" containing the following pseudocode:

```
1 Algoritmo operadores
2     Definir residuo Como Entero
3     definir division Como Real
4
5     division = 125 / 5
6     Escribir "La division de 15 / 6 = ",division
7     residuo = 125 % 25
8     Escribir "La division de 15 / 6 = ",residuo
9 FinAlgoritmo
10
```

On the right, a terminal window titled "PSeInt - Ejecutando proceso OPERADORES" shows the execution results:

```
*** Ejecución Iniciada. ***
La division de 15 / 6 = 25
La division de 15 / 6 = 0
*** Ejecución Finalizada. ***
```

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help FundamentosProgramacionN - Apa

Projects X

- > a2241330016_practica4
- > a2241330016_practica5
- > a2241330016_practica6
- > FundamentosdeProgramacion
- > FundamentosProgramacionN
 - > Source Packages
 - > fundamentosprogramacionn
 - identificadores.java
 - operadores.java
 - parentesis.java
 - primerprojeto.java
 - > Libraries
 - > Prog_001

Start Page X primerprojeto.java X identificadores.java X operadores.java X parentesis.java

Source History

```

1 package fundamentosprogramacionn;
2
3 public class parentesis {
4     public static void main(String[] args) {
5
6         double fahrenheit, celsius, celsiusf;
7
8         fahrenheit = 40;
9
10        celsius = 5.0 / 9 * fahrenheit - 32;
11        celsiusf = (5.0 / 9) * (fahrenheit - 32);
12
13        System.out.println("5.0 / 9 * fahrenheit - 32 = " + celsius);
14        System.out.println("(5.0 / 9) * (fahrenheit - 32) = " + celsiusf);
15    }
16
17

```

Output - FundamentosProgramacionN (run)

```

run:
5.0 / 9 * fahrenheit - 32 = -9.777777777777779
(5.0 / 9) * (fahrenheit - 32) = 4.444444444444445
BUILD SUCCESSFUL (total time: 0 seconds)

```

PSelint

Archivo Editar Configurar Ejecutar Ayuda

Algoritmo parentesis

```

1 Algoritmo parentesis
2   Definir fahrenheit, celsius, celsiusf Como Real
3
4   fahrenheit ← 40
5
6   celsius ← 5/9 * fahrenheit - 32
7   celsiusf ← (5/9) * (fahrenheit - 32)
8
9   Escribir "5/9 * fahrenheit - 32 = ", celsius
10  Escribir "(5/9) * (fahrenheit - 32) = ", celsiusf
11 FinAlgoritmo
12

```

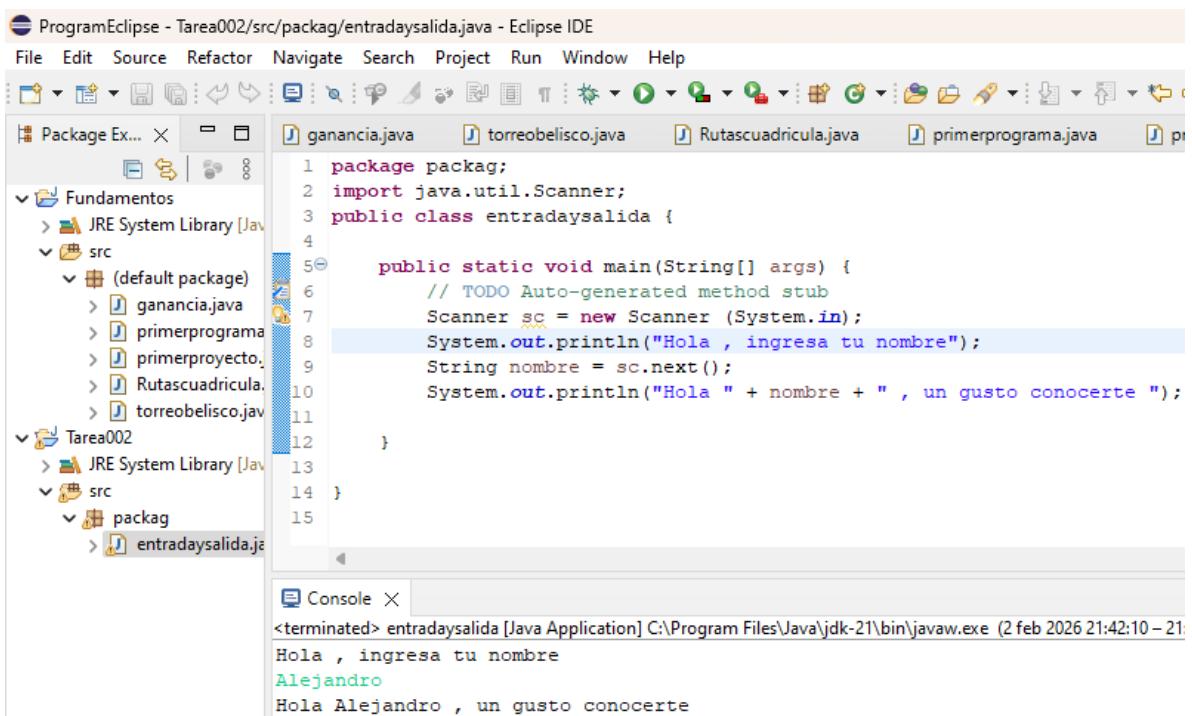
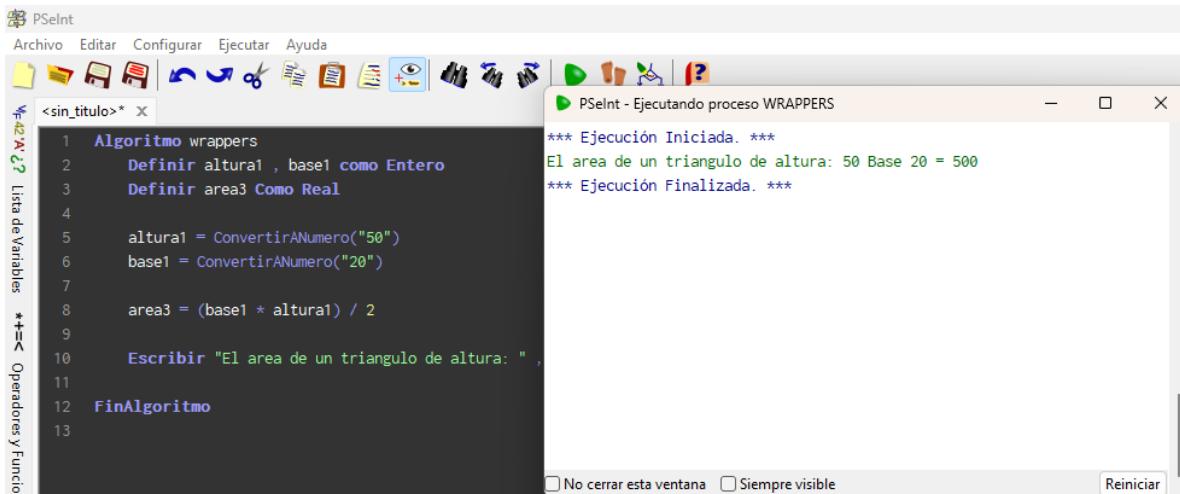
PSelint - Ejecutando proceso PARENTESIS

```

*** Ejecución Iniciada. ***
5/9 * fahrenheit - 32 = -9.777777777777779
(5/9) * (fahrenheit - 32) = 4.444444444444445
*** Ejecución Finalizada. ***

```

No cerrar esta ventana Siempre visible Reiniciar



ProgramEclipse - Tarea002/src/packag/entradaysalida_2.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X ganancia.java torreobelisco.java Rutascuadricula.java entra

Fundamentos JRE System Library [Java]

src (default package) ganancia.java primerprograma primerproyecto Rutascuadricula torreobelisco.java

Tarea002 JRE System Library [Java]

src packag entradaysalida_2 entradaysalida.java

```
1 package packag;
2
3 public class entradaysalida_2 {
4
5     public static void main(String[] args) {
6         // TODO Auto-generated method stub
7         int numero = 12345;
8         System.out.println("Hola Mundo");
9         System.out.println("numero");
10        System.out.println("tu numero es: " + numero);
11    }
12
13 }
14
```

Console X

```
<terminated> entradaysalida_2 [Java Application] C:\Program Files\Java\jdk-21\bin\javaw
Hola Mundo
numero
tu numero es: 12345
```

ProgramEclipse - Tarea002/src/packag/Buffered.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X ganancia.java torreobelisco.java Rutascuadricula.java entradaysalida.java entradaysalida_2.java

Fundamentos JRE System Library [Java]

src (default package) ganancia.java primerprograma primerproyecto Rutascuadricula torreobelisco.java

Tarea002 JRE System Library [Java]

src packag Buffered.java entradaysalida_2 entradaysalida.java

```
1 package packag;
2 import java.io.*;
3 public class Buffered {
4
5     public static void main(String[] args) throws NumberFormatException, IOException {
6         // TODO Auto-generated method stub
7         BufferedReader entrada = new BufferedReader(new InputStreamReader(System.in));
8
9         // a continuacion se declaran las variables para su uso
10        double altura, base, area;
11
12        System.out.println("Introduce la Base:");
13        base = Double.parseDouble(entrada.readLine());
14
15        System.out.println("Introduce la Altura:");
16        altura = Double.parseDouble(entrada.readLine());
17
18        area = base * altura;
19        System.out.println("El area es: " + area);
20    }
21 }
```

Console X

```
<terminated> Buffered [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (2 feb 2026 21:56:02 – 21:56:09) [pid: 7432]
Introduce la Base:
5
Introduce la Altura:
4
El area es = 20.0
```

ProgramEclipse - Tarea002/src/packag/Practica06_b_Scanner.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X ganancia.java torreobelisco.java Rutascuadricula.java Practica06_b_Scanner.java

Fundamentos JRE System Library [Java] src (default package) ganancia.java primerprograma primerproyecto Rutascuadricula torreobelisco.java

Tarea002 JRE System Library [Java] src packag entradaysalida_2 entradaysalida.java Practica_06_a_Bu Practica06_b_Scanner.java

```
1 package packag;
2 import java.util.Scanner;
3 public class Practica06_b_Scanner {
4     public static void main(String[] args) {
5         Scanner entrada = new Scanner(System.in);
6
7         double altura, base, area;
8
9         System.out.println("Introduce la Base: ");
10        //base = Double.parseDouble(entrada.readLine());
11        base = entrada.nextDouble();
12
13        System.out.println("Introduce la Altura: ");
14        //altura = Double.parseDouble(entrada.readLine());
15        altura = entrada.nextDouble();
16    }
}
```

Console X

```
<terminated> Practica06_b_Scanner [Java Application] C:\Program Files\Java\jdk-21\bin\j
Introduce la Base:
5
Introduce la Altura:
6
El area es = 30.0
```

ProgramEclipse - Tarea002/src/packag/Practica06_c_joptionpane.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X ganancia.java torreobelisco.java Rutascuadricula.java Practica06_b_Scanner.java Practica06_c_joptionpane.java

Fundamentos JRE System Library [Java] src (default package) ganancia.java primerprograma primerproyecto Rutascuadricula torreobelisco.java

Tarea002 JRE System Library [Java] src packag entradaysalida_2 entradaysalida.java Practica_06_a_Bu Practica06_b_Scanner.java Practica06_c_joptionpane.java

```
1 package packag;
2 import javax.swing.*;
3 public class Practica06_c_joptionpane {
4     public static void main(String[] args) {
5
6         double altura, base, area;
7         String entrada;
8
9         entrada = JOptionPane.showInputDialog("Introduce la base: ");
10        base = Double.parseDouble(entrada);
11        System.out.println("Introduce la Base: ");
12
13        //base = Double.parseDouble(entrada);
14        //base = entrada.nextDouble();
15        //System.out.println("Introduce la Altura: ");
16    }
}
```

Message X

i El area es = 30.0 OK

Console X

The screenshot shows the Eclipse IDE interface with the following details:

- Title Bar:** ProgramEclipse - Tarea002/src/packag/Practica06_d_Entrada.java - Eclipse IDE
- Menu Bar:** File Edit Source Refactor Navigate Search Project Run Window Help
- Toolbar:** Standard Eclipse toolbar icons.
- Project Explorer:** Shows the project structure under Fundamentos and Tarea002. Under Fundamentos, the src folder contains packages (default package) and sub-packages like packag, which contain files such as ganancia.java, primerprograma.java, primerproyecto.java, Rutascuadricula.java, and torreobelisco.java. Under Tarea002, the src folder contains packages like packag, which contain files like entradasalida_2.java, entradasalida.java, Practica_06_a_Bu.java, Practica06_b_Sc.java, Practica06_c_jop.java, and Practica06_d_Ent.java.
- Code Editor:** The Practica06_d_Ent.java file is open. The code reads a number from the user between 0 and 99.999, then calculates dm (the integer part divided by 10000) and numero (the remainder). The code editor has syntax highlighting and line numbers.
- Console:** The console window shows the application's output: "Introduzca un numero entre 0 y 99.999:", followed by the user input "2026" and the program's response "2 0 2 0".

The screenshot shows the Apache NetBeans IDE 20 interface. The top menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help, and a status bar indicating 'a2241330016_tarea09 - Apache NetBeans IDE 20' with memory usage '319.6/684.0MB'. The left sidebar displays the 'Projects' view with several Java projects listed, including 'a2241330016_practica4' through 'a2241330016_tarea07'. Under 'a2241330016_tarea07', there is a 'Source Packages' folder containing a sub-project 'a2241330016_tarea07' which contains source files 'prob_1_1.java' through 'prob_2_5.java'. The main workspace shows the file 'Practica07_a.java' with the following code:

```
import java.io.IOException;
public class Practica07_a {
    public static void main(String[] args) throws IOException {
        BufferedReader entrada = new BufferedReader(new InputStreamReader(System.in));
        int a, b, c; //coeficientes ax^2 + bx+c = 0
        double x1, x2, d; //soluciones y determinante

        System.out.println("Introduzca el primer coeficiente (a): ");
        a = Integer.parseInt(entrada.readLine());
        System.out.println("Introduzca el segundo coeficiente (b): ");
        b = Integer.parseInt(entrada.readLine());
        System.out.println("Introduzca el tercer coeficiente (c): ");
        c = Integer.parseInt(entrada.readLine());

        //calculando el determinante
        d = ((b*b) - 4 * a * c);

        if(d > 0) {
            //condicion verdadera
```

The 'Output' window at the bottom shows the console output for running the program:

```
Introduzca el primer coeficiente (a):
-1
Introduzca el segundo coeficiente (b):
-8
Introduzca el tercer coeficiente (c):
0
Solucion: -8.0
Solucion: -0.0
```

Apache NetBeans IDE 20

Projects x Start Page x Practica07_a.java x Ejercicio02_a.java x

Source History

```
1 package a2241330016_tarea09;
2 import java.io.BufferedReader;
3 import java.io.InputStreamReader;
4 import java.io.IOException;
5 public class Ejercicio02_a {
6     public static void main(String[] args) throws IOException {
7         BufferedReader entrada = new BufferedReader(new InputStreamReader(System.in));
8         int numero;
9         System.out.println("Introduzca un numero de 5 cifras: ");
10        numero = Integer.parseInt(entrada.readLine());
11
12        if(numero > 10000 && numero < 99999) {
13            System.out.println("Tiene 5 cifras");
14        } else {
15            System.out.println("No tiene 5 cifras.");
16        }
17    }
18}
```

Output - a2241330016_tarea09 (run)

```
run:
Introduzca un numero de 5 cifras:
57890
Tiene 5 cifras
BUILD SUCCESSFUL (total time: 15 seconds)
```

Apache NetBeans IDE 20

Projects x Start Page x Practica07_a.java x Ejercicio02_a.java x Ejercicio03_a.java x

Source History

```
1 package a2241330016_tarea09;
2 import java.io.BufferedReader;
3 import java.io.InputStreamReader;
4 import java.io.IOException;
5 public class Ejercicio03_a {
6     public static void main(String[] args) throws IOException {
7         BufferedReader entrada = new BufferedReader(new InputStreamReader(System.in));
8         int numero;
9         double dato;
10        System.out.println("Introduzca un numero de 5 cifras: ");
11        dato = Double.parseDouble(entrada.readLine());
12        numero = (int) dato;
13        if((numero < 100000) && (numero > 9999) && (numero == dato)) {
14            System.out.println("Tiene 5 cifras");
15        } else {
16            System.out.println("Lo siento no tiene 5 cifras o no es entero.");
17        }
18    }
19}
```

Output - a2241330016_tarea09 (run)

```
run:
Introduzca un numero de 5 cifras:
12345
Tiene 5 cifras
BUILD SUCCESSFUL (total time: 5 seconds)
```

PSelnt

Archivo Editar Configurar Ejecutar Ayuda

Ejercicio4_Facturas.psc X

1 **Algoritmo** Ejercicio4_Facturas
2 Definir i, codigo, facturasMas600 **Como Entero**
3 Definir litros, precio, importe, facturacionTotal, litrosArticulol **Como Real**
4 facturacionTotal ← 0
5 litrosArticulol ← 0
6 facturasMas600 ← 0
7 **Para** i←1 Hasta 5 **Hacer**
8 Escribir 'FACTURA ', i
9 Escribir 'Codigo del articulo: '
10 Leer codigo
11 Escribir 'Cantidad vendida en litros: '
12 Leer litros
13 Escribir 'Precio por litro: '
14 Leer precio
15 importe ← litros*precio
16 facturacionTotal ← facturacionTotal+importe
17 **Si** codigo==1 **Entonces**
18 litrosArticulol ← litrosArticulol+litros
19 **SiNo**
20 **Si** importe≥600 **Entonces**
21 facturasMas600 ← facturasMas600+1
22 **FinSi**
23 **FinSi**
24 **FinPara**
25 Escribir 'Facturacion total: \$', facturacionTotal
26 Escribir 'Litros vendidos del articulo 1: ', litrosArticulol
27 Escribir 'Facturas de mas de \$600: ', facturasMas600
28 **FinAlgoritmo**

PSelnt - Ejecutando proceso EJERCICIO4_FACTURAS

Precio por litro:
> 15
FACTURA 5
Codigo del articulo:
> 5
Cantidad vendida en litros:
> 25
Precio por litro:
> 10
Facturacion total: \$7045
Litros vendidos del articulo 1: 70
Facturas de mas de \$600: 1
*** Ejecución Finalizada. ***

No cerrar esta ventana Siempre visible Reiniciar

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help a2241330016_tarea09 - Apache NetBea

Projects X Start Page X Practica07_a.java X Ejercicio02_a.java X Ejercicio03_a.java X Ejercicio4_Facturas.java

Source History

```
public class Ejercicio4_Facturas {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        int i, codigo, facturasMas600;
        double litros, precio, importe, facturacionTotal, litrosArticulol;

        facturacionTotal = 0;
        litrosArticulol = 0;
        facturasMas600 = 0;

        for (i = 1; i <= 5; i++) {

            System.out.println("FACTURA " + i);

            System.out.print("Codigo del articulo: ");
            codigo = sc.nextInt();

            Codigo del articulo: 3
            Cantidad vendida en litros: 75
            Precio por litro: 50
            FACTURA 5
            Codigo del articulo: 11
            Cantidad vendida en litros: 40
            Precio por litro: 23
            Facturacion total: $11840.0
            Litros vendidos del articulo 1: 100.0
            Facturas de mas de $600: 4
            BUILD SUCCESSFUL (total time: 1 minute 16 seconds)
```

