Julian Gerber

Write the output and explain why:

|  |  |  |
| --- | --- | --- |
|  | Code | Output |
| A | public static void foo(int num) {  System.out.print(num\*3);  }  public static void foo(double num) {  System.out.print(num\*2);  }  public static void bar() {  foo(2.0);  foo(3);  } | |  |  | | --- | --- | | Method Call | Output | | bar() | 4.09 | | foo(5) | 15 |   Because: first it calls foo(2.0) which is a double so it prints 2\*2 which is 4. Then foo(3) prints 9. Foo(5) prints 15 bc 5\*3=15 |
| B | for (int i = 1; i <=5; i++) {  for (int j = i; j > 0; j--) {  System.out.print(j + " ");  }  System.out.println();  } | 1  1 2  1 2 3  1 2 3 4  1 2 3 4 5  Because: int i is the number of rows thus 5 rows then j prints all numbers up until current row number. |

Are these expressions or statements Valid, Explain why:

|  |  |
| --- | --- |
| int num = “three”; | Invalid because “three” is a string literal not an integer |
| String first2Last= “Hernandez”; | Valid because “Hernandez” is a String |
| double 2num = 4.7; | Invalid because variable cannot start with a number |

1. Write a block of code that prints out an n by n zero matrix:

**import** java.util.Scanner;

**public** **class** Matrix {

**public** **static** **void** main(String [] args) {

Scanner scnr = **new** Scanner(System.***in***);

System.***out***.println("Enter number n: ");

**int** n = scnr.nextInt();

**for** (**int** i = 1; i<= n; ++i) {

System.***out***.println("");

**for** (**int** j = 1; j<= n; ++j) {

System.***out***.print("0 ");}

}

}}

1. Write a static void method that takes two int numbers and display the sum:

**import** java.util.Scanner;

**public** **class** Sum {

**static** **int** *sum* ; **static** **int** *num1*; **static** **int** *num2*;

**static** Scanner *scnr* = **new** Scanner(System.***in***);

**public** **static** **int** Sum1(**int** num1, **int** num2) {

System.***out***.println("Enter two integers to find the sum: " );

num1 = *scnr*.nextInt(); num2 = *scnr*.nextInt();

*sum* = num1 + num2;

**return** *sum*; }

**public** **static** **void** main(String [] args) {

*Sum1*(*num1*, *num2*);

System.***out***.println("Sum: " + *sum*); } }

1. Write a class called Bird that contains two static void method called sing() that display the sound of the bird, and another static method called eat() that will call the method sing() and display “num num Yummy food!” invoke both methods from the main method.

**import** java.util.Scanner;

**public** **class** Bird {

**static** String *birdSound*;

**public** **static** **void** sing() {

Scanner scnr = **new** Scanner(System.***in***);

System.***out***.println("Enter bird sound: ");

*birdSound* = scnr.nextLine();

System.***out***.println(*birdSound*); }

**public** **static** **void** eat() {

*sing*();

System.***out***.println("num num Yummy food!");

}

**public** **static** **void** main(String [] args) {

*eat*();

} }