**Level 4 Exam**league logo.jpg

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GitHub username: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coding: /100

1. Create a two dimensional array of Strings that has 10 columns and 4 rows.

2. Rewrite the following switch-statement with the same logic using an if/else block.

int x = new Random().nextInt(3);

switch(x){

case 0:

System.out.println("zero");

break;

case 1:

System.out.println("uno");

break;

case 2:

System.out.println("duce");

break;

default:

System.out.println("uh oh");

break;

}

3. Create an object of the Widget class that defines G as a BufferedImage.

public class Widget<G>{

G memVar;

}

4. Consider the following enum:

enum Bracket{

BRONZE, SILVER, GOLD, PLATINUM

}

Bracket brkt = getPlacement(); //implemented elsewhere

Write an if/else block that will print a different response based on the value of brkt.

5. Write a method called isEvenString that takes a String as a parameter and returns a boolean. It should return true if the string has an even amount of characters and false if it has an odd amount.

Example: isEvenString("water"); //should return false

6. What is printed when this code is run?

try {

System.out.println("here");

int x = 10/0;

System.out.println("there");

} catch (Exception e) {

System.out.println("nowhere");

}

7. Use encapsulation to protect the resolution member variable in the Graphics class below. Make sure that the resolution cannot be set higher than 1000.

public class Graphics{

int resolution;

}

8. What is the output of the following program when run?

public class Runner{

public static void main(String[] args){

class Parent{

public Parent(){

System.out.println("Parent");

}

public void speak(){

System.out.println("Old");

}

}

class Child extends Parent{

public Child(){

super();

System.out.println("Child");

}

public void speak(){

super.speak();

System.out.println("New");

}

}

Parent par = new Parent();

par.speak();

Child child = new Child();

child.speak();

}

}

9. The following is a matrix that represents the values of a 2D array printed out in row major order.

0 1 2 3

4 5 6 7

8 9 10 11

Complete the code below to properly define the size of the matrix.

int[][] matrix = new int[ ] [ ];

10. Write a method called countAlphaZed that takes a String and returns an int. It should return the total number of a's and z's in the String.

Example: countAlphaZed("Zanzibar"); // should return 4