

CS 5004 Individual Quiz 2

Due Jan 23 at 12p.m.

Points 10

Questions 10

Available Jan 18 at 12p.m. - Jan 23 at 12p.m.

Time Limit 30 Minutes

Instructions

Complete quiz 2 individually.

You will re-take this quiz as a team quiz in class.

Attempt History

| | Attempt | Time | Score |
|--------|------------------|------------|-------------|
| LATEST | <u>Attempt 1</u> | 11 minutes | 9 out of 10 |

⚠ Correct answers will be available on Jan 24 at 12a.m..

Score for this quiz: **9** out of 10

Submitted Jan 18 at 1:19p.m.

This attempt took 11 minutes.

Question 1

1 / 1 pts

When you want a method to return nothing, what do you put for the return type?

☐ empty

☒ void

☐ null

☐ false

Question 2

1 / 1 pts

What does Java guarantee is part of every class?

☐ A method to get the binary representation of the class.

☒ A `toString()` method.

☐ A set of getter methods to retrieve class variables.

☐ A set of private class variables.

Question 3

1 / 1 pts

Assume there is a method that takes an `int` value as parameter.

When JUnit testing this method, which of these options is the best way to do so?

☒

Generate many random integer values -positive and negative- and test if all of them work.

☐

You only need to test three possibilities: one positive value, one negative value, and 0.

☐

One single value (a regular number, like 5 or 7) is all that is needed for your unit tests.

☐

Convert all numbers to String, and always compare those instead of the numbers themselves.

Question 4**1 / 1 pts**

Assume you are using a method that can throw an exception. In order to properly handle the cases when that exception is thrown what is best to use in your code?

- ☒ Use a try-catch block.
- ☐ JUnit tests to see if the exception is thrown.
- ☐ Use a play-grab block.
- ☐ Nothing. Exceptions are not possibly to recover from.

Question 5**1 / 1 pts**

You are instructed to make a class `Student` that will have fields and methods related to things a student might need to do, such as enroll in a course or drop a course. What should you do first?

- ☐ Implement the constructor.
- ☐ Write the JUnit test for all methods of the class.

- ☒ Think about what fields and methods you would like and make a class diagram.
- ☐ Write the toString method.

Question 6

1 / 1 pts

What of the following is true?

- ☐ A constructor is optional for most classes.
- ☐ A method is not a term used in Java, instead we use the term function.
- ☐ A constructor is part of an object class, while a method is defined outside of a class but will take objects as parameters.
- ☒ A constructor is for the creation of a new instance of an object, and a method is for carrying out an operation involving an existing object.

Question 7

1 / 1 pts

Assume you are working with a class for manipulating images. This class has a method called `resize`. The method takes as input a double that is greater than or equal to 0, and the value is the proportion of the current size. So an input of 0.5 will half the size, an input of 1.0 will keep the same size, and 2.0 will double the size.

Which of the following statement is true?

☐

Assume you have an image called `image1.png` in the correct location. You also have the code:

```
MyImage im = new MyImage("image1.png");  
im.resize(1000.0);
```

This code will result in an `IllegalArgumentException` being thrown.

☐

Assume you have an image called `image1.png` in the correct location. You also have the code:

```
MyImage im = new MyImage("image1.png");  
im.resize(10);
```

This code will result in an `IllegalArgumentException` being thrown.



Assume you have an image called image1.png in the correct location. You also have the code:

```
MyImage im = new MyImage("image1.png");  
im.resize(1.5);
```

This code will result in an `IllegalArgumentException` being thrown.



Assume you have an image called image1.png in the correct location. You also have the code:

```
MyImage im = new MyImage("image1.png");  
im.resize(-1);
```

This code will result in an `IllegalArgumentException` being thrown.

Incorrect

Question 8

0 / 1 pts

What is the best way to handle an error?



Having detailed information in the Javadoc-style comment on how to avoid the error



We do not to do anything. Java handles errors automatically.

- ☒ Using an exception for the error
- ☐ Making sure the error does not happen

Question 9**1 / 1 pts**

Which of the following statements is false?

- ☐ Methods can take multiple primitives as arguments.
- ☐ Methods can take objects of other classes as arguments.
- ☐ A method for a class can take an object of that class as an argument.
- ☒ Unit tests must be written for both private and public methods.

Question 10**1 / 1 pts**

You are given a method with the signature:

/ **


```
* Returns the minimum of the two numbers
*
* @param n1 the first number
* @param n2 the second number
* @return the smaller of the two numbers
*/
public float minimum(float n1, float n2)
```

This method is part of the class `MyMath`.

Which of the following is a correct use of the method?

- ☐ `int i = MyMath.minimum(2f, 5.3f);`
- ☒ `float f = MyMath.minimum(0.23f, 1.5f);`
- ☐ `float f = MyMath.minumum(5, 99);`
- ☐ `int i = MyMath.minimum(2, 17);`

Quiz Score: **9** out of 10