

Name: _____

Section: _____

Quiz #9

1. (10 points) Assume there is a Java interface called `Guide` and a class called `Dog` that implements the `Guide` interface.

- a. Which of the following are true? (Circle all that are true.)

The `Guide` interface must contain prototypes for all methods of the `Dog` class.

The `Dog` class must implement all of the methods that are mentioned in the `Guide` interface.

The `Dog` class can implement more than one interface.

- b. Which of the following statements are valid? (Circle the ones that will compile.)

`Dog x = new Guide();`

`Guide y = new Dog();`

`Guide z = new Guide();`

2. (5 points) Using the ternary operator (`?:`), write a statement that is equivalent to the code fragment below, but in which only *one* call to the `foo` method appears in your code.

```
if (a != 5) {  
    foo(x);  
} else {  
    foo(y);  
}
```

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3. (15 points) Write a switch statement that is equivalent to the code fragment below. Your switch statement may not include any redundant code, and it may not contain any if statements, if-else statements, or uses of the ternary operator. Assume that the variable x is an int variable and has already been initialized.

```
if (x == 10) {  
    System.out.println("A");  
} else if (x == 11 || x == 13) {  
    System.out.println("B");  
} else if (x == 12) {  
    System.out.println("C");  
}  
if (x < 10 || x > 13) {  
    System.out.println("D");  
}
```