This quiz is to be taken by yourself with closed books, closed notes, no calculators.

(Partial) Operator Precedence Table

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1) What is the output of this code? (Circle correct letter.)

```java
class Test1 {
    public static void main(String[] args) {
        int x = 1;
        if (x < 2)
            System.out.print("Hello, ");
        if (x > 1)
            System.out.print("How are you? ");
        else
            System.out.println("I am fine.");
    }
}
```

A. Hello, I am fine.
B. Hello, How are you?
C. Hello,
D. How are you? I am fine.

2) Which of the statements below is logically equivalent to the if-conditional:

    if( !P && Q )

Assume for any two independent statements P and Q. (Circle correct letter.)

A. if( !!P || Q )
B. if( !(P || !Q) )
C. if( !(P && !Q) )
D. if( !Q && P )

3) What is the value of Nag after the assignment statement below? (Circle correct letter.)

```java
double Nag = 25;
Nag = Nag + Nag * (1/5);
```

A. 25.0
B. 30.0
C. 10.0
D. None of the above or an error of some kind exists (compile time or run time)
4) Assume a program had the following declarations:

```java
Location loc1 = new Location(2, 3);
Location loc2 = new Location(loc1);
Location loc3 = loc1;
```

What result would be produced by the following expressions?

```java
(loc1 == loc2) ____________ loc1.equals(loc2) ____________
(loc2 == loc3) ____________ loc2.equals(loc3) ____________
```

5) What output is produced with the following code fragment? Assume `method1()` is invoked as

```java
Quiz2 q2 = new Quiz2();
q2.method1(5);
```

```java
public class Quiz2 {
    private int a; // Line 3
    
    public void method1( int x )
    {
        int a; // Line 7
        int b = x;
        a = b + 2;
        this.a = b + 3;
        System.out.println("a = " + a);
        System.out.println("b = " + b);
        System.out.println("this.a = " + this.a);
        System.out.println("method2() result = " + method2(x));
        System.out.println("this.a = " + this.a);
    }
    
    private int method2( int x )
    {
        int a = x;
        int b = this.a;
        b = b + 3;
        System.out.println("a = " + a);
        System.out.println("b = " + b);
        System.out.println("this.a = " + this.a);
        this.a = b + 1;
        return a + 1;
    }
}
```

**Output:**

a = __________
b = __________
this.a = __________
a = __________
b = __________
this.a = __________
method2() result = __________
this.a = __________

What is the initial value of `a` on Line 7? __________

What is the initial value of `a` on Line 3? __________