Signature _____ **CSE 11 Quiz 2 Fall 2008** **Name** _____

cs11f ____ **Student ID** _____

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

(Partial) Operator Precedence Table

Operators	Associativity
* / %	left to right
+ -	left to right
< <= > >=	left to right
== !=	left to right
&&	left to right
||	left to right
=	right to left

1) What is the value of `amt` for each of the expressions below? Note the type declarations for each. To represent an integer value, do not write a decimal point (for example: 99 or 42). To represent a double value, write a decimal point and one digit to the right of the decimal point (for example: 99.0 or 42.5).

```
int amt = 10;
amt = amt + amt * (5 / 100);
```
_____

```
int amt = 10;
amt = (int) (amt + amt * (5 / 100.0));
```
_____

```
double amt = 10;
amt = amt + amt * (5 / 100);
```
_____

```
double amt = 10;
amt = amt + amt * (5 / 100.0);
```
_____

2) Assume a program contained the following declarations:

```
private Location loc1 = new Location( 37, 24 );
private Location loc2 = new Location( 37, 24 );
private Location loc3 = loc1;
```

What result would be produced by the expressions

```
loc1 == loc2
```
_____

```
loc1 == loc3
```
_____

```
loc2.equals( loc1 )
```
_____

```
loc3.equals( loc1 )
```
_____

3) What is the result of each of the following expressions

```
2 + 3 + "4"
```
_____

```
"2" + 3 + 4
```
_____

4) What is the equivalent Java expression for the following such that no ! operators are used?

```
!( x <= 0 || x > 15 )
```

_____

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

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

```
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 + 2;

    System.out.println( "a = " + a );
    System.out.println( "b = " + b );
    System.out.println( "this.a = " + this.a );

    this.a = b + 2;

    return a + 2;
  }
}
```

Output:

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

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

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