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

Given the following partial class definition for Point,
fill in the blanks to complete the class definition:

```java
public class Point
{
  private int x;
  private int y;

  public Point( int x, int y )
  {
    setX( x );
    setY( y );
  }

  public int getX()
  {
    _____;
  }

  public int getY()
  {
    _____;
  }

  public void setX( int x )
  {
    _____;
  }

  public void setY( int y )
  {
    _____;
  }
}
```

Given the following expressions, indicate whether the expressions evaluate to true or false.

```java
String s1 = new String( "CSE 11" );
String s2 = s1;
String s3;

s3 = "CSE 11";

s1 == s2                _____

s1.equals( s2 )         _____

s1 == s3                _____

s1.equals( s3 )         _____

s1 == "CSE 11"          _____

s3 == "CSE 11"          _____
```

Assume you are given the array definition below and the array is properly initialized:

```java
Point[] points = new Point[42];

// Assume array points is properly and fully initialized here
```

Without using any extra variables other than the variable **points**, write the single Java statement to change the last Point's y value to be the same value as the first Point's x value. Do not use any magic numbers or integer constants other than 0 or -1.

_____

If we tried to access `points[42]`, what Runtime exception would be thrown?

_____

Given the following class definitions for class Foo, class Fubar, and class FubarTest:

```java
public class Foo
{
  public Foo()
  {
    System.out.println( "Foo ctor #1" );
  }

  public Foo( int x, int y )
  {
    this();
    System.out.println( "Foo ctor #2" );
  }

  public String toString()
  {
    System.out.println( "Foo.toString" );
    return "Foo.toString";
  }
}
```

```java
public class Fubar extends Foo
{
  public Fubar( int x, int y )
  {
    this( x, y, -37 );
    System.out.println( "Fubar ctor #1" );
  }

  public Fubar( int x, int y, int z )
  {
    super( x, y );
    System.out.println( "Fubar ctor #2" );
  }

  public String toString()
  {
    System.out.println( "Fubar.toString" );
    return super.toString() + " + " +
           "Fubar.toString";
  }
}
```

```java
public class FubarTest
{
  public static void main( String[] args )
  {
    Foo ref = new Fubar( 42, 420 );

    System.out.println( "-----" );

    System.out.println( ref.toString() );
  }
}
```

What is the output when we run FubarTest as in
   java FubarTest

Given the following class definition:

```java
public class Quiz5
{
  private int q5 = 420;
}
```

Write the equivalent class definition explicitly showing everything the Java compiler implicitly inserts by default. Underline the parts the Java compiler will automatically include as it compiles into bytecode.

What question would you like to see on the Final Exam?