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

Write a method named `dSum()` that takes an array of `double`s as a parameter and returns the sum of all elements in the array. Use the standard `for` loop; do not use the enhanced `for/foreach` loop. (I will ask you to use the enhanced `for/foreach` loop on the Final.)

Fill in the blanks to complete this method definition.

```java
public _______________ dSum( __________________ array )
{
    __________ sum = ______________;
    for ( _________________; _____________________; _________________ )
    {
        ________________________________;
    }
    return ______________;
}
```

Fill in the blanks in the code to correctly produce the multiple array layout below:

```java
int[][] a;
a = new int[___][];
a[___] = new int[___];
a[0] = new int[___];
a[___] = new int[4];
```

Write the assignment statement to set the array element marked by the X to the value 42.
The Java keyword which denotes inheritance of implementation is _________________.

The Java keyword which denotes inheritance of interface is _________________.

_____________________ gives a "has a" relationship while _____________________ gives us an "is a" relationship.

The two main features of a constructor definition which distinguishes it from a method definition are:

1)

2)

In the last HW assignment with the Shapes hierarchy, indicate which statements are valid and which are invalid.

ARectangle ref1 = new Square( 100, 200, 50 );  ____________
Point p = ref1.getUpperLeft();  ____________
int length = ref1.getSide();  ____________
ref1 = new ARectangle( "Rectangle", 100, 200 );  ____________

In a toString() method defined in a subclass, how do you get the String representation of the superclass private parts assuming the superclass toString() is defined correctly and there are no non-private accessor methods?

In the equals() method, how do you check for exact type equality between this object and the object referenced by the parameter reference o?

```java
if ( _______________________   ______  ____________ )
{
    return false;
}
```

Given the following class definition:

```java
public class Quiz5
{
    private int q5 = 5;
}
```

Write the equivalent class definition explicitly showing what the Java compiler implicitly inserts by default.