Quiz 1 problems.

quiz1-1 Gradual typing
(10 points) Add explicit type annotations to the following VBA module.

```vba
Function geometricMean(arr())
    geometricMean = 1
    For i = LBound(arr) To UBound(arr)
        geometricMean = geometricMean * arr(i)
    Next i
    n = 1 + UBound(arr) - LBound(arr)
    geometricMean = geometricMean ^ (1.0 / n)
End Function
Sub main()
    Dim A(1)
    A(0) = 1: A(1) = 2
    Debug.Print geometricMean(A)
End Sub
```

quiz1-2 Precedence and associativity
(10 points) Consider the following excerpt of Perl's operator table.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Arity</th>
<th>Associativity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>**</td>
<td>2</td>
<td>right</td>
<td>exponentiation</td>
</tr>
<tr>
<td>*</td>
<td>2</td>
<td>left</td>
<td>multiplication</td>
</tr>
<tr>
<td>=</td>
<td>2</td>
<td>right</td>
<td>assignment</td>
</tr>
</tbody>
</table>

Fully parenthesize the following expression: $x = $y = 3 ** 3 * 2.

quiz1-3 Call-backs
(4+3+3 = 10 points)

a. How are call-backs supported in VBA user forms?
b. Give an advantage for this language design choice.
c. Give a disadvantage for this language design choice.