

Scripting Languages G22.3033-002 Summer 2008

Example solutions for quiz1

Thursday 6/5/2008. 30 points.

<http://www.cs.nyu.edu/courses/summer08/G22.3033-002/>

Instructions for example solutions

These are example solutions. Please keep in mind that often, there is not just one correct solution to a question. If you come up with different answers, then it may be that both your answers and these answers here are correct. Of course, these answers here may also contain mistakes. If you spot a mistake, please let me know so I can correct it.

Example solutions for Quiz 1

solutions-quiz1-1 Gradual typing

```
Function geometricMean(arr() As Double) As Double
    Dim i As Integer, n As Integer
    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) As Double
    A(0) = 1: A(1) = 2
    Debug.Print geometricMean(A)
End Sub
```

solutions-quiz1-2 Precedence and associativity

```
$x = ($y = ((3 ** (3 ** 3)) * 2))
```

solutions-quiz1-3 Call-backs

- By name mangling conventions. When there is an event E on a user interface control C , then the VBA interpreter calls routine C_E in the form's code sheet.
- This rule is easy to understand, the programmer isn't likely to get confused about the interaction.
- Name mangling is brittle, because if the programmer changes the name of a control, they might forget to change the name of all associated call-backs.