' Simpson's rule

' for function f(x)= y(x) = x^4

Dim f(99)

a = 0

b = 1

n = 88

h = (b - a) / n

'

For k = 0 To n

x = a + k \* (b - a) / n

v = x ^ 4

f(k) = v

Next k

'

i2j = 0

For j = 1 To n / 2 - 1

i2j = i2j + f(2 \* j)

Next j

'

i2jm1 = 0

For j = 1 To n / 2

i2jm1 = i2jm1 + f(2 \* j - 1)

Next j

'

i = (f(0) + 2 \* i2j + 4 \* i2jm1 + f(n)) \* h / 3

'

MsgBox i

d1 = Abs(i - 1 / 5)

MsgBox d1

d2 = Abs(4 \* 3 \* 2 \* 1 / (180 \* n ^ 4))

MsgBox d2

dd = Abs(d1 - d2)

MsgBox dd