

Bugs using loops in functions callings.

appVersion(4) = "0.99.7610.506"

Function with a function as parameter.

$$g(u, v, f(x, y)) := 5 \cdot f(u, v)$$

Call with factorial

$$f(x, y) := \begin{cases} a := 2 \\ a \cdot x + y! \end{cases}$$

$$g(3, 4, f(x\#, y\#)) = 150$$

$$5 \cdot (2 \cdot 3 + 24) = 150$$

Call with a while

$$f(x, y) := \begin{cases} a := 2 \\ \varphi := 1 \\ k := y \\ \text{while } k > 0 \\ \quad \begin{cases} \varphi := \varphi \cdot k \\ k := k - 1 \end{cases} \\ a \cdot x + \varphi \end{cases}$$

$$g(3, 4, f(x\#, y\#)) = 35 \quad \text{What?}$$

$$FWhile(y) := \begin{cases} \varphi := 1 \\ k := y \\ \text{while } k > 0 \\ \quad \begin{cases} \varphi := \varphi \cdot k \\ k := k - 1 \end{cases} \\ \varphi \end{cases}$$

$$FWhile(4) = 24 \quad \text{Factorial using while.}$$

$$4! = 24$$

$$f(x, y) := \begin{cases} a := 2 \\ \varphi := FWhile(y) \\ a \cdot x + \varphi \end{cases}$$

$$g(3, 4, f(x\#, y\#)) = 35$$

Call with a for

$$f(x, y) := \begin{cases} a := 2 \\ \varphi := 1 \\ \text{for } k \in [1..y] \\ \quad \varphi := \varphi \cdot k \\ a \cdot x + \varphi \end{cases}$$

$$g(3, 4, f(x\#, y\#)) = \blacksquare$$

$$g(4, 3, f(x\#, y\#)) = \blacksquare$$

lastError = "y# - not defined."

$$FFor(y) := \begin{cases} \varphi := 1 \\ \text{for } k \in [1..y] \\ \quad \varphi := \varphi \cdot k \\ \varphi \end{cases}$$

$$FFor(4) = 24 \quad \text{Factorial using while.}$$

$$4! = 24$$

$$f(x, y) := \begin{cases} a := 2 \\ \varphi := FFor(y) \\ a \cdot x + \varphi \end{cases}$$

$$g(3, 4, f(x\#, y\#)) = \blacksquare$$

lastError = "y# - not defined."

