
Errata

Due to an error in the typesetting process, Nathaniel Grossman's article *A Solver for $f(x)=0$* , published in Volume 5, Number 2 of *The Journal of Forth Application and Research*, is missing the final page of Forth code described in the article. We regret any inconvenience this omission may have caused, and now include the missing code with our apologies to the author and to the subscribers of the *Journal*.

\ Scr# 33 Root-bracketing solver NG 08/13/86

\ guess either the possible root a or possible brackets a and b
\ syntax: a | a b [SOLVING] <function>

```
: [SOLVING] ( a | a b - f[root] root )
  ' IS FUNC      \ ' is NOT a misprint for [']
  CR CR ." Searching for root brackets"
  [ROOT]        \ bracket a root
  X1 F@ X2 F@   \ the initial search interval
  PRE-SOLVER    \ search out a root
  FB@ FSWAP ;   \ f[root] root
```

\ Scr# 34 Call counters NG 08/16/86

\ #FUNC counts only when <function> is replaced by
\ the word : <function>' 1 #FUNC +! <function> ;

```
: TOTUP ( - )
  CR ." #FUNC = " #FUNC @ .
  CR ." #ITERS = " #ITERS @ .
  CR ." #QUAD = " #QUAD @ .
  CR ." #LIN = " #LIN @ .
  CR ." #BIS = " #BIS @ .
  CR ;
```

\ Scr# 35 References NG 08/14/86

- A. Anderson, M. Tracy, *Mastering Forth*, Brady, 1984.
- R. P. Brent, *Algorithms for Minimization without Derivatives*, Prentice-Hall, 1973.
- G. E. Forsythe, M. A. Malcolm, C. B. Moler, *Computer Methods for Mathematical Computations*, Prentice-Hall, 1977.
- W. H. Kahan, *Personal Calculator Has Key To Solve Any Equation $f(x) = 0$* , Hewlett-Packard Journal, 1979.
- W. H. Press, B. P. Flannery, S. A. Teukolsky, W. T. Vetterling, *Numerical Recipes*, Cambridge, 1986.