

Given  $f$  as a function,  $n$  as number of roots,  $g$  a vector of guesses,  $h$  as the step size

For all roots  $jj = 1:n$

    Begin indexing at 1 ( $ii=1$ )

    The first  $a$  value is the guess

    While  $\text{sign of } f(a(ii)) \neq \text{sign of } f(a(ii) + h)$

$a(ii+1) = a(ii) + h$

        increase index by one

    end while loop

create a matrix in which the  $jj$  value is the row with the final  $a$  value in the right column and the second to last value is in the left column

end