```
Input: function f(x), float x0, float x1, float tolerance, int iterations
Output: result table results

begin secant

    if(f(x) is not a valid function)
        break;
    if(x0 or x1 or tolerance or iterations are not valid numbers)
        break;
    if(tolerance is lees than 0)
        break;
    if(iterations is less than 1)
        break;

    array results

    int iter_count <- 0
    float g_x <- g(initial_x)
    float f_x <- f(initial_x)
    float error <- MAXIMUM FLOAT VALUE
    results[iter_count] <- [iter_count, x0, f(x0), "N/A"]
    iter_count <- iter_count + 1
    results[iter_count] <- [iter_count, x1, f(x1), "N/A"]
    float previous_x <- x1
    float second_previous_x <- x0
    float current_x

        while iter_count < iterations and error > tolerance do:
            iter_count <- iter_count + 1
            current_x <- previous_x - ((f(previous_x)*
                (previous_x - second_previous_x))/(f(previous_x) -
                f(second_previous_x)))
            error <- |current_x - previous_x|
            results[iter_count] <- [iter_count, current_x, f(current_x), error]
            second_previous_x <- previous_x
            previous_x <- current_x
        end while

    return results

end secant
```