

Prime_Number_Solver_Vector_Version_8 (Calls: 1, Time: 0.012 s)

Generated 18-Jul-2023 12:28:40 using performance time.







Script in file [G:\.shortcut-targets-by-id\1FDIvj8mfMGVPmzoguheuOUy-VJPYsRSg\Portfolio\Personal\MATLAB Fun\Prime Number Solver\Prime_Number_Solver_Vector_Version_8.m](#)

[Copy to new window for comparing multiple runs](#)

Parents (calling functions)

No parent

Lines that take the most time

Line Number	Code	Calls	Total Time (s)	% Time	Time Plot
22	numbers = find(isPrime) * 2 - 1;	1	0.005	40.1%	
17	isPrime(index:i:length(isPrime)) = f...	268	0.002	19.5%	
14	index = find(isTest, 1);	268	0.001	9.5%	
1	clear	1	0.001	4.7%	
2	clc	1	0.000	4.0%	
All other lines			0.003	22.2%	
Totals			0.012	100%	

Children (called functions)

No children

Code Analyzer results

Coverage results

[Show coverage for parent folder](#)

Total lines in function	27
Non-code lines (comments, blank lines)	7
Code lines (lines that can run)	20
Code lines that did run	20
Code lines that did not run	0
Coverage (did run/can run)	100.00 %

Function listing

Time	Calls	Line
< 0.001	1	1 clear
< 0.001	1	2 clc
		3
		4 %3000000 will take around 0.007600 sec and have 216816 primes

```
< 0.001      1      5      tic
< 0.001      1      6      max = 3000000;
< 0.001      1      7      stoppingPoint = floor(sqrt(max));
               8
< 0.001      1      9      isPrime = true(1, ceil(max / 2));
< 0.001      1     10      isTest = true(1, ceil(stoppingPoint / 2));
               11      isTest(1) = false;
               12
< 0.001      1     13      while any(isTest)
0.001      268     14          index = find(isTest, 1);
< 0.001      268     15          i = 2 * index - 1;
               16
0.002      268     17          isPrime(index:i:length(isPrime)) = false;
< 0.001      268     18          isPrime(index) = true;
               19
< 0.001      268     20          isTest(index:i:length(isTest)) = false;
< 0.001      268     21      end
0.005      1     22      numbers = find(isPrime) * 2 - 1;
< 0.001      1     23      numbers(1) = 2;
< 0.001      1     24      toc
< 0.001      1     25      disp(length(numbers))
               26      %all(numbers == primes(max))
< 0.001      1     27      disp("Done")
```
