

Prime_Number_Solver_Vector_Version_1 (Calls: 1, Time: 1213.521 s)

Generated 17-Jul-2023 16:46:17 using performance time.



Script in file [G:\.shortcut-targets-by-id\1FDlvj8mfMGVPmzoguheuOUy-VJPYsRSglePortfolio\Personal\MATLAB Fun\Prime Number Solver\Prime_Number_Solver_Vector_Version_1.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
18	primeNumbers = setdiff(allNumbers, r...	1	1071.633	88.3%	
16	removeNumber = multiplyNumbers .* te...	1	141.483	11.7%	
3	clf	1	0.174	0.0%	
20	disp(length(primeNumbers))	1	0.087	0.0%	
4	close all	1	0.075	0.0%	
All other lines			0.069	0.0%	
Totals			1213.521	100%	

Children (called functions)

Function Name	Function Type	Calls	Total Time (s)	% Time	Time Plot
setdiff	Function	1	1071.400	88.3%	
clf	Function	1	0.161	0.0%	
close	Function	1	0.062	0.0%	
linspace	Function	2	0.011	0.0%	
Self time (built-ins, overhead, etc.)			141.885	11.7%	
Totals			1213.521	100%	

Code Analyzer results

Coverage results

[Show coverage for parent folder](#)

Total lines in function	21
Non-code lines (comments, blank lines)	5
Code lines (lines that can run)	16
Code lines that did run	16
Code lines that did not run	0

Function listing

Time	Calls	Line	
0.001	1	1	clear
< 0.001	1	2	clc
0.174	1	3	clf
0.075	1	4	close all
< 0.001	1	5	format long
		6	
		7	%3000000 will take around 1021.326412 sec and have 216816 primes
< 0.001	1	8	tic
< 0.001	1	9	max = 3000000;
< 0.001	1	10	stoppingPoint = ceil(sqrt(max));
		11	
0.020	1	12	allNumbers = linspace(2,max, max - 1);
< 0.001	1	13	testNumbers = linspace(2, stoppingPoint, stoppingPoint - 1);
		14	
0.006	1	15	multiplyNumbers = reshape(allNumbers(1:end), [], 1);
141.483	1	16	removeNumber = multiplyNumbers .* testNumbers;
		17	
1071.633	1	18	primeNumbers = setdiff(allNumbers, removeNumber);
0.033	1	19	toc
0.087	1	20	disp(length(primeNumbers))
0.006	1	21	disp("Done")