Prime_Number_Solver_Vector_Version_7 (Calls: 1, Time: 0.036 s)

Generated 17-Jul-2023 20:45:41 using performance time.
Script in file G:\.shortcut-targets-by-id\1FDIvj8mfMGVPmzoguheuOUy-VJPYsRSg\ePortfolio\Personal\MATLAB Fun\Prime Number Solver\Prime_Number_Solver_Vector_Version_7.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
26	`isPrime(remove) = 0;`	268	0.011	31.5%	
32	`numbers(~isPrime) = [];`	1	0.006	15.3%	
20	`remove = start:i:length(numbers);`	268	0.005	14.6%	
25	`remove = remove(2:end);`	268	0.005	13.8%	
9	`numbers = 1:2:max;`	1	0.003	9.0%	
All other lines			0.006	15.9%	
Totals			0.036	100%	

Children (called functions)

No children

Code Analyzer results

Coverage results

Show coverage for parent folder

Total lines in function	35
Non-code lines (comments, blank lines)	10
Code lines (lines that can run)	25
Code lines that did run	25
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 0.028370 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	
0.003	1	9	numbers = 1:2:max;
< 0.001	1	10	numbers(1) = 2;
< 0.001	1	11	isPrime = true(1, length(numbers));
		12	
< 0.001	1	13	test = 3:2:stoppingPoint;
< 0.001	1	14	isTest = true(1, length(test));
		15	
< 0.001	1	16	while(any(isTest))
< 0.001	268	17	i = test(find(isTest, 1));
		18	
< 0.001	268	19	start = i - ceil(i / 2) + 1;
0.005	268	20	remove = start:i:length(numbers);
		21	
< 0.001	268	22	removeEnd = ceil(length(test) / i);
< 0.001	268	23	testRemove = remove(1:removeEnd);
		24	
0.005	268	25	remove = remove(2:end);
0.011	268	26	isPrime(remove) = 0;
		27	
		28	%remove = (start - 1):i:length(test);
< 0.001	268	29	testRemove = testRemove - 1;
< 0.001	268	30	isTest(testRemove) = 0;
< 0.001	268	31	end
0.006	1	32	numbers(~isPrime) = [];
< 0.001	1	33	toc
< 0.001	1	34	disp(length(numbers))
< 0.001	1	35	disp("Done")