STEP I: Loading the data

In this step we call the data to perform a demo of our system Identification procedure.

Note) Due to confidentiality of the Data, this data has no meaning, and it has nothing to do with the data addressed in the paper. However, we decided to add it here to demosntate our methodology.

```matlab
load('normalizedData.mat');
%mynewTable = combinedData;
mynewTable = normalizedData;

% Here we redefine the headers in order to fix the parameters(faeatures.)
newTable.Properties.VariableNames = ["Time", "Comp_freq", "Tw_wex_out",
"Tw_wex_in", "Tw_wex_delta", "Air_Temp", "TR_wex_out"];

vars= {'Comp_freq' 'Tw_wex_out' 'Tw_wex_in' 'Tw_wex_delta' 'Air_Temp' 'TR_wex_out'};
t2 = mynewTable{:,vars};
t2(isnan(t2)) = 0;
mynewTable{:,vars} = t2;
writetable(mynewTable, 'mynewTable.csv');
```

STEP II: Dividing the dataset based on months:

Preprocessing and setting internal parameters

```matlab
%Preprocessing
%clear temporary variables
clear opts
%mytable = table(newTable);
mymonths = month(mynewTable.Time);
```

Spliting the table into separate tables for each month and save them both locally (Folder of **data months**) in the current folder and in the workspace

```matlab
%main
%We specify a name for the folder.
subfolder_name = 'Data_months_year';
subfolder_path = fullfile(pwd, subfolder_name);
% Check if the subfolder exists, and if not, create it
if ~exist(subfolder_path, 'dir')
    mkdir(subfolder_path);
end

nrows = height(mynewTable);
for m = 1:12
    monthlyTable = mynewTable(mymonths == m, :);
    % Check if the table is empty or not
    if ~isempty(monthlyTable)
        % create a unique name for the table
        table_name = sprintf('Table_%04d%02d', year(monthlyTable.Time(1)), m);
```

```matlab
        %table_name = sprintf('table_%02d_%02d', mod(year(monthlyTable.Time),100),
m);

        % set the variable names
        variable_names = {'Time', 'Comp_freq', 'Tw_wex_out','Tw_wex_in',
'Tw_wex_delta', 'Air_Temp','TR_wex_out' };
        disp(['Table for month ' num2str(m)]);
        disp(monthlyTable);
        %Save the related table in workspace, matfile, txt file
        assignin('base', table_name, monthlyTable);
        save(fullfile(subfolder_path, table_name), 'monthlyTable');
        writetable(monthlyTable, fullfile(subfolder_path, table_name));
    end
end
```

Table for month 2

Time	Comp_freq	Tw_wex_out	Tw_wex_in	Tw_wex_delta	Air_Temp	TR_wex_out
02/01/2023 00:00	0	0.45272	0.58289	0.47748	0.24746	0.41751
02/01/2023 00:01	0	0.4507	0.55615	0.51802	0.25085	0.38384
02/01/2023 00:02	0	0.4507	0.53743	0.54955	0.25085	0.34848
02/01/2023 00:03	0	0.45272	0.52941	0.56757	0.25085	0.32997
02/01/2023 00:04	0	0.45272	0.52406	0.57658	0.25085	0.30976
02/01/2023 00:05	0	0.45272	0.52139	0.58108	0.25085	0.29798
02/01/2023 00:06	0	0.4507	0.51872	0.58108	0.25424	0.2862
02/01/2023 00:07	0	0.44869	0.51604	0.58108	0.25424	0.28451
02/01/2023 00:08	0	0.44668	0.51604	0.57658	0.25424	0.28788
02/01/2023 00:09	0	0.44467	0.51337	0.57658	0.25763	0.29293
02/01/2023 00:10	0	0.44266	0.51337	0.57207	0.25763	0.30303
02/01/2023 00:11	0	0.43863	0.5107	0.56757	0.25763	0.31145
02/01/2023 00:12	0	0.43662	0.5107	0.56306	0.25763	0.3266
02/01/2023 00:13	0	0.43461	0.50802	0.56306	0.26102	0.3367
02/01/2023 00:14	0	0.4326	0.50802	0.55856	0.26102	0.34343
02/01/2023 00:15	0	0.42857	0.50535	0.55405	0.26441	0.35017
02/01/2023 00:16	0	0.42656	0.50535	0.54955	0.26441	0.35354
02/01/2023 00:17	0	0.42455	0.50267	0.54955	0.26441	0.35859
02/01/2023 00:18	0	0.42254	0.50267	0.54505	0.26441	0.36027
02/01/2023 00:19	0	0.41851	0.5	0.54054	0.2678	0.36027
02/01/2023 00:20	0	0.4165	0.49733	0.54054	0.2678	0.36195
02/01/2023 00:21	0	0.41449	0.49733	0.53604	0.2678	0.36195
02/01/2023 00:22	0	0.41247	0.49465	0.53604	0.2678	0.36195
02/01/2023 00:23	0	0.41046	0.49198	0.53604	0.2678	0.36027
02/01/2023 00:24	0	0.40845	0.49198	0.53153	0.26441	0.35859
02/01/2023 00:25	0	0.40644	0.4893	0.53153	0.2678	0.35522
02/01/2023 00:26	0	0.40443	0.48663	0.53153	0.2678	0.35354
02/01/2023 00:27	0	0.4004	0.48396	0.52703	0.2678	0.35185
02/01/2023 00:28	0	0.4004	0.48128	0.53153	0.26441	0.34848
02/01/2023 00:29	0	0.39638	0.47861	0.52703	0.2678	0.34512
02/01/2023 00:30	0	0.39638	0.47861	0.52703	0.26441	0.34343
02/01/2023 00:31	0	0.39235	0.47594	0.52252	0.2678	0.34007
02/01/2023 00:32	0	0.39034	0.47326	0.52252	0.2678	0.33838
02/01/2023 00:33	0	0.38833	0.47059	0.52252	0.2678	0.19529
02/01/2023 00:34	0	0.38632	0.46791	0.52252	0.2678	0.15488
02/01/2023 00:35	0	0.38431	0.46524	0.52252	0.2678	0.16498
02/01/2023 00:36	0	0.38229	0.46257	0.52252	0.2678	0.18687
02/01/2023 00:37	0	0.38028	0.46257	0.51802	0.2678	0.19865
02/01/2023 00:38	0	0.37827	0.45989	0.51802	0.2678	0.21549
02/01/2023 00:39	0	0.37626	0.45722	0.51802	0.2678	0.22559
02/01/2023 00:40	0	0.37425	0.45455	0.51802	0.2678	0.23401

02/01/2023 00:41	0	0.37223	0.45187	0.51802	0.2678	0.23906
02/01/2023 00:42	0	0.37022	0.4492	0.51802	0.2678	0.24411
02/01/2023 00:43	0	0.36821	0.44652	0.51802	0.2678	0.24579
02/01/2023 00:44	0	0.36821	0.44385	0.52252	0.2678	0.24916
02/01/2023 00:45	0	0.3662	0.44118	0.52252	0.2678	0.25084
02/01/2023 00:46	0	0.36419	0.4385	0.52252	0.2678	0.25421
02/01/2023 00:47	0	0.36217	0.4385	0.51802	0.2678	0.25758
02/01/2023 00:48	0	0.36016	0.43583	0.51802	0.2678	0.25926
02/01/2023 00:49	0	0.35815	0.43316	0.51802	0.2678	0.26263
02/01/2023 00:50	0	0.35614	0.43048	0.51802	0.2678	0.26431
02/01/2023 00:51	0	0.35412	0.42781	0.51802	0.2678	0.26599
02/01/2023 00:52	0	0.35211	0.42781	0.51351	0.2678	0.26768
02/01/2023 00:53	0	0.3501	0.42246	0.51802	0.2678	0.26768
02/01/2023 00:54	0	0.34809	0.42246	0.51351	0.2678	0.26936
02/01/2023 00:55	0	0.34608	0.41979	0.51351	0.27119	0.27104
02/01/2023 00:56	0	0.34608	0.41711	0.51802	0.27119	0.27104
02/01/2023 00:57	0	0.34205	0.41444	0.51351	0.27119	0.27273
02/01/2023 00:58	0	0.34205	0.41444	0.51351	0.27458	0.27273
02/01/2023 00:59	0	0.34004	0.41176	0.51351	0.27458	0.27273
02/01/2023 01:00	0	0.33803	0.40909	0.51351	0.27458	0.27273
02/01/2023 01:01	0	0.33602	0.40642	0.51351	0.27119	0.27441
02/01/2023 01:02	0	0.334	0.40642	0.50901	0.27119	0.27609
02/01/2023 01:03	0	0.33199	0.40374	0.50901	0.27119	0.27609
02/01/2023 01:04	0	0.32998	0.40107	0.50901	0.27119	0.27609
02/01/2023 01:05	0	0.32797	0.3984	0.50901	0.27119	0.27778
02/01/2023 01:06	0	0.32797	0.39572	0.51351	0.27119	0.27609
02/01/2023 01:07	0	0.32596	0.39572	0.50901	0.27119	0.27609
02/01/2023 01:08	0	0.32394	0.39305	0.50901	0.27119	0.27609
02/01/2023 01:09	0	0.32394	0.39037	0.51351	0.27119	0.27609
02/01/2023 01:10	0	0.31992	0.39037	0.5045	0.27458	0.27609
02/01/2023 01:11	0	0.31992	0.3877	0.50901	0.27458	0.27609
02/01/2023 01:12	0	0.31791	0.38503	0.50901	0.27458	0.27609
02/01/2023 01:13	0	0.31791	0.38503	0.50901	0.27458	0.27609
02/01/2023 01:14	0	0.3159	0.38235	0.50901	0.27458	0.27609
02/01/2023 01:15	0	0.31388	0.37968	0.50901	0.27458	0.27609
02/01/2023 01:16	0	0.31187	0.37968	0.5045	0.27458	0.27609
02/01/2023 01:17	0	0.30986	0.37701	0.5045	0.27458	0.27441
02/01/2023 01:18	0	0.30986	0.37433	0.50901	0.27458	0.27441
02/01/2023 01:19	0	0.30584	0.37433	0.5	0.27458	0.27441
02/01/2023 01:20	0	0.30584	0.37433	0.5	0.27458	0.27441
02/01/2023 01:21	0	0.30382	0.37166	0.5	0.27119	0.27441
02/01/2023 01:22	0	0.30181	0.36898	0.5	0.27119	0.27441
02/01/2023 01:23	0	0.2998	0.36631	0.5	0.27119	0.27441
02/01/2023 01:24	0	0.2998	0.36364	0.5045	0.27119	0.27273
02/01/2023 01:25	0	0.29779	0.36096	0.5045	0.2678	0.27273
02/01/2023 01:26	0	0.29779	0.36096	0.5045	0.2678	0.27273
02/01/2023 01:27	0	0.29577	0.35829	0.5045	0.2678	0.27273
02/01/2023 01:28	0	0.29376	0.35561	0.5045	0.2678	0.27273
02/01/2023 01:29	0	0.29376	0.35561	0.5045	0.2678	0.27273
02/01/2023 01:30	0	0.29175	0.35294	0.5045	0.26441	0.27273
02/01/2023 01:31	0	0.28974	0.35027	0.5045	0.26441	0.27441
02/01/2023 01:32	0	0.28974	0.35027	0.5045	0.26441	0.27441
02/01/2023 01:33	0	0.28773	0.34759	0.5045	0.26102	0.27441
02/01/2023 01:34	0	0.28571	0.34492	0.5045	0.26102	0.27441
02/01/2023 01:35	0	0.28571	0.34225	0.50901	0.25763	0.27273
02/01/2023 01:36	0	0.2837	0.34225	0.5045	0.25763	0.27273
02/01/2023 01:37	0	0.28169	0.33957	0.5045	0.25763	0.27273
02/01/2023 01:38	0	0.28169	0.3369	0.50901	0.25424	0.27273
02/01/2023 01:39	0	0.27968	0.3369	0.5045	0.25424	0.27104
02/01/2023 01:40	0	0.27767	0.33422	0.5045	0.25424	0.26936
02/01/2023 01:41	0	0.27767	0.33155	0.50901	0.25085	0.26936
02/01/2023 01:42	0	0.27565	0.33155	0.5045	0.25085	0.26936
02/01/2023 01:43	0	0.27364	0.32888	0.5045	0.25085	0.26936
02/01/2023 01:44	0	0.27163	0.3262	0.5045	0.24746	0.26768

02/01/2023 01:45	0	0.27163	0.3262	0.5045	0.24746	0.26768
02/01/2023 01:46	0	0.26962	0.32353	0.5045	0.24407	0.26768
02/01/2023 01:47	0	0.26761	0.32086	0.5045	0.24407	0.26768
02/01/2023 01:48	0	0.26761	0.32086	0.5045	0.24407	0.26599
02/01/2023 01:49	0	0.26559	0.31818	0.5045	0.24407	0.26599
02/01/2023 01:50	0	0.26358	0.31818	0.5	0.24407	0.26599
02/01/2023 01:51	0	0.26358	0.31551	0.5045	0.24068	0.26599
02/01/2023 01:52	0	0.26157	0.31283	0.5045	0.24068	0.26431
02/01/2023 01:53	0	0.25956	0.31283	0.5	0.24068	0.26431
02/01/2023 01:54	0	0.25956	0.31016	0.5045	0.24068	0.26431
02/01/2023 01:55	0	0.25755	0.30749	0.5045	0.24068	0.26263
02/01/2023 01:56	0	0.25553	0.30749	0.5	0.24068	0.26263
02/01/2023 01:57	0	0.25553	0.30481	0.5045	0.23729	0.26263
02/01/2023 01:58	0	0.25352	0.30481	0.5	0.23729	0.26094
02/01/2023 01:59	0	0.25151	0.30214	0.5	0.23729	0.26094
02/01/2023 02:00	0	0.25151	0.30214	0.5	0.23729	0.26094
02/01/2023 02:01	0	0.2495	0.29947	0.5	0.23729	0.25926
02/01/2023 02:02	0	0.24748	0.29679	0.5	0.23729	0.25926
02/01/2023 02:03	0	0.24748	0.29679	0.5	0.2339	0.25758
02/01/2023 02:04	0	0.24547	0.29679	0.4955	0.2339	0.25758
02/01/2023 02:05	0	0.24346	0.29412	0.4955	0.2339	0.25758
02/01/2023 02:06	0	0.24346	0.29144	0.5	0.2339	0.25589
02/01/2023 02:07	0	0.24145	0.29144	0.4955	0.2339	0.25758
02/01/2023 02:08	0	0.23944	0.28877	0.4955	0.2339	0.25589
02/01/2023 02:09	0	0.23944	0.28877	0.4955	0.2339	0.25589
02/01/2023 02:10	0	0.23742	0.2861	0.4955	0.2339	0.25589
02/01/2023 02:11	0	0.23742	0.2861	0.4955	0.2339	0.25589
02/01/2023 02:12	0	0.2334	0.28342	0.49099	0.2339	0.25421
02/01/2023 02:13	0	0.2334	0.28342	0.49099	0.2339	0.25421
02/01/2023 02:14	0	0.23139	0.28075	0.49099	0.2339	0.25421
02/01/2023 02:15	0	0.23139	0.28075	0.49099	0.23051	0.25253
02/01/2023 02:16	0	0.22938	0.27807	0.49099	0.23051	0.25253
02/01/2023 02:17	0	0.22736	0.27807	0.48649	0.22712	0.25253
02/01/2023 02:18	0	0.22736	0.2754	0.49099	0.22712	0.25084
02/01/2023 02:19	0	0.22535	0.27273	0.49099	0.22712	0.25084
02/01/2023 02:20	0	0.22535	0.27273	0.49099	0.22373	0.25084
02/01/2023 02:21	0	0.22334	0.27005	0.49099	0.22373	0.24916
02/01/2023 02:22	0	0.22334	0.27005	0.49099	0.22373	0.24916
02/01/2023 02:23	0	0.22133	0.26738	0.49099	0.22373	0.24747
02/01/2023 02:24	0	0.21932	0.26738	0.48649	0.22034	0.24747
02/01/2023 02:25	0	0.21932	0.26471	0.49099	0.22034	0.24747
02/01/2023 02:26	0	0.2173	0.26471	0.48649	0.22034	0.24747
02/01/2023 02:27	0	0.2173	0.26203	0.49099	0.22034	0.24579
02/01/2023 02:28	0	0.21529	0.26203	0.48649	0.22034	0.24579
02/01/2023 02:29	0	0.21529	0.25936	0.49099	0.22034	0.24579
02/01/2023 02:30	0	0.21328	0.25936	0.48649	0.21695	0.24579
02/01/2023 02:31	0	0.21328	0.25668	0.49099	0.22034	0.24579
02/01/2023 02:32	0	0.21127	0.25668	0.48649	0.21695	0.24411
02/01/2023 02:33	0	0.21127	0.25401	0.49099	0.21695	0.24411
02/01/2023 02:34	0	0.20926	0.25401	0.48649	0.21695	0.24411
02/01/2023 02:35	0	0.20724	0.25134	0.48649	0.21695	0.24242
02/01/2023 02:36	0	0.20724	0.25134	0.48649	0.21695	0.24242
02/01/2023 02:37	0	0.20523	0.24866	0.48649	0.21695	0.24074
02/01/2023 02:38	0	0.20523	0.24866	0.48649	0.21356	0.24074
02/01/2023 02:39	0	0.20322	0.24599	0.48649	0.21356	0.24074
02/01/2023 02:40	0	0.20322	0.24332	0.49099	0.21356	0.23906
02/01/2023 02:41	0	0.20322	0.24332	0.49099	0.21356	0.23906
02/01/2023 02:42	0	0.20121	0.24064	0.49099	0.21356	0.23906
02/01/2023 02:43	0	0.1992	0.24064	0.48649	0.21017	0.23737
02/01/2023 02:44	0	0.1992	0.24064	0.48649	0.21017	0.23737
02/01/2023 02:45	0	0.19718	0.23797	0.48649	0.21017	0.23737
02/01/2023 02:46	0	0.19718	0.23797	0.48649	0.21017	0.23569
02/01/2023 02:47	0	0.19517	0.23529	0.48649	0.21017	0.23569
02/01/2023 02:48	0	0.19517	0.23529	0.48649	0.21017	0.23569

02/01/2023 02:49	0	0.19316	0.23262	0.48649	0.21017	0.23569
02/01/2023 02:50	0	0.19115	0.23262	0.48198	0.20678	0.23569
02/01/2023 02:51	0	0.19115	0.22995	0.48649	0.20678	0.23401
02/01/2023 02:52	0	0.18913	0.22727	0.48649	0.20678	0.23401
02/01/2023 02:53	0	0.18913	0.22727	0.48649	0.20339	0.23401
02/01/2023 02:54	0	0.18712	0.2246	0.48649	0.20339	0.23401
02/01/2023 02:55	0	0.18712	0.2246	0.48649	0.20339	0.23401
02/01/2023 02:56	0	0.18511	0.2246	0.48198	0.20339	0.23232
02/01/2023 02:57	0	0.18511	0.22193	0.48649	0.20339	0.23232
02/01/2023 02:58	0	0.1831	0.22193	0.48198	0.20339	0.23232
02/01/2023 02:59	0	0.1831	0.21925	0.48649	0.20339	0.23064
02/01/2023 03:00	0	0.18109	0.21925	0.48198	0.20339	0.23064
02/01/2023 03:01	0	0.18109	0.21658	0.48649	0.20339	0.23064
02/01/2023 03:02	0	0.17907	0.21658	0.48198	0.20339	0.23064
02/01/2023 03:03	0	0.17907	0.2139	0.48649	0.2	0.23064
02/01/2023 03:04	0	0.17706	0.2139	0.48198	0.2	0.22896
02/01/2023 03:05	0	0.17706	0.21123	0.48649	0.2	0.22896
02/01/2023 03:06	0	0.17505	0.21123	0.48198	0.2	0.22896
02/01/2023 03:07	0	0.17505	0.20856	0.48649	0.2	0.22896
02/01/2023 03:08	0	0.17304	0.20856	0.48198	0.2	0.22727
02/01/2023 03:09	0	0.17304	0.20588	0.48649	0.2	0.22727
02/01/2023 03:10	0	0.17304	0.20321	0.49099	0.2	0.22727
02/01/2023 03:11	0	0.17103	0.20321	0.48649	0.2	0.22727
02/01/2023 03:12	0	0.16901	0.20321	0.48198	0.2	0.22559
02/01/2023 03:13	0	0.16901	0.20053	0.48649	0.2	0.22559
02/01/2023 03:14	0	0.167	0.19786	0.48649	0.2	0.22559
02/01/2023 03:15	0	0.167	0.19786	0.48649	0.2	0.22559
02/01/2023 03:16	0	0.16499	0.19786	0.48198	0.2	0.22559
02/01/2023 03:17	0	0.16499	0.19519	0.48649	0.2	0.22391
02/01/2023 03:18	0	0.16298	0.19519	0.48198	0.2	0.22391
02/01/2023 03:19	0	0.16298	0.19251	0.48649	0.20339	0.22391
02/01/2023 03:20	0	0.16097	0.19251	0.48198	0.20339	0.22222
02/01/2023 03:21	0	0.16097	0.18984	0.48649	0.20339	0.22222
02/01/2023 03:22	0	0.15895	0.18984	0.48198	0.20339	0.22222
02/01/2023 03:23	0	0.15895	0.18717	0.48649	0.20678	0.22054
02/01/2023 03:24	0	0.15694	0.18717	0.48198	0.21017	0.22054
02/01/2023 03:25	0	0.15694	0.18449	0.48649	0.21017	0.22054
02/01/2023 03:26	0	0.15493	0.18449	0.48198	0.21356	0.22054
02/01/2023 03:27	0	0.15493	0.18182	0.48649	0.21356	0.22054
02/01/2023 03:28	0	0.15292	0.18182	0.48198	0.21356	0.22054
02/01/2023 03:29	0	0.15292	0.17914	0.48649	0.21356	0.21886
02/01/2023 03:30	0	0.15091	0.17914	0.48198	0.21356	0.21886
02/01/2023 03:31	0	0.15091	0.17647	0.48649	0.21356	0.21886
02/01/2023 03:32	0	0.14889	0.17647	0.48198	0.21017	0.21717
02/01/2023 03:33	0	0.14889	0.1738	0.48649	0.21017	0.21717
02/01/2023 03:34	0	0.14688	0.1738	0.48198	0.20678	0.21717
02/01/2023 03:35	0	0.14688	0.1738	0.48198	0.20678	0.21549
02/01/2023 03:36	0	0.14487	0.17112	0.48198	0.20678	0.21549
02/01/2023 03:37	0	0.14487	0.17112	0.48198	0.20339	0.21549
02/01/2023 03:38	0	0.14286	0.16845	0.48198	0.20339	0.2138
02/01/2023 03:39	0	0.14286	0.16845	0.48198	0.2	0.2138
02/01/2023 03:40	0	0.14085	0.16845	0.47748	0.2	0.2138
02/01/2023 03:41	0	0.14085	0.16578	0.48198	0.2	0.2138
02/01/2023 03:42	0	0.13883	0.16578	0.47748	0.2	0.2138
02/01/2023 03:43	0	0.13883	0.1631	0.48198	0.2	0.2138
02/01/2023 03:44	0	0.13682	0.1631	0.47748	0.2	0.2138
02/01/2023 03:45	0	0.13682	0.1631	0.47748	0.2	0.21212
02/01/2023 03:46	0	0.13682	0.16043	0.48198	0.19661	0.21212
02/01/2023 03:47	0	0.13481	0.16043	0.47748	0.19661	0.21212
02/01/2023 03:48	0	0.13481	0.16043	0.47748	0.19661	0.21212
02/01/2023 03:49	0	0.1328	0.15775	0.47748	0.19322	0.21044
02/01/2023 03:50	0	0.1328	0.15775	0.47748	0.19322	0.21212
02/01/2023 03:51	0	0.13078	0.15508	0.47748	0.19322	0.21044
02/01/2023 03:52	0	0.13078	0.15508	0.47748	0.18983	0.21044

02/01/2023 03:53	0	0.12877	0.15508	0.47297	0.18983	0.21044
02/01/2023 03:54	0	0.12877	0.15241	0.47748	0.19322	0.21044
02/01/2023 03:55	0	0.12676	0.15241	0.47297	0.19322	0.20875
02/01/2023 03:56	0	0.12475	0.14973	0.47297	0.18983	0.20875
02/01/2023 03:57	0	0.12475	0.14973	0.47297	0.18983	0.20875
02/01/2023 03:58	0	0.12475	0.14973	0.47297	0.18983	0.20875
02/01/2023 03:59	0	0.12274	0.14706	0.47297	0.18983	0.20875
02/01/2023 04:00	0	0.12274	0.14706	0.47297	0.18983	0.20707
02/01/2023 04:01	0	0.12274	0.14706	0.47297	0.18983	0.20707
02/01/2023 04:02	0	0.12072	0.14439	0.47297	0.18983	0.20707
02/01/2023 04:03	0	0.12072	0.14439	0.47297	0.18983	0.20707
02/01/2023 04:04	0	0.12072	0.14171	0.47748	0.18983	0.20707
02/01/2023 04:05	0	0.11871	0.14171	0.47297	0.18983	0.20539
02/01/2023 04:06	0	0.11871	0.14171	0.47297	0.18983	0.20539
02/01/2023 04:07	0	0.1167	0.14171	0.46847	0.18983	0.20539
02/01/2023 04:08	0	0.1167	0.13904	0.47297	0.18644	0.20539
02/01/2023 04:09	0	0.11469	0.13904	0.46847	0.18983	0.20539
02/01/2023 04:10	0	0.11469	0.13636	0.47297	0.18983	0.2037
02/01/2023 04:11	0	0.11469	0.13636	0.47297	0.18644	0.2037
02/01/2023 04:12	0	0.11268	0.13636	0.46847	0.18644	0.2037
02/01/2023 04:13	0	0.11268	0.13369	0.47297	0.18644	0.2037
02/01/2023 04:14	0	0.11268	0.13369	0.47297	0.18644	0.2037
02/01/2023 04:15	0	0.11066	0.13102	0.47297	0.18644	0.2037
02/01/2023 04:16	0	0.11066	0.13102	0.47297	0.18644	0.2037
02/01/2023 04:17	0	0.10865	0.13102	0.46847	0.18644	0.2037
02/01/2023 04:18	0	0.10865	0.12834	0.47297	0.18644	0.2037
02/01/2023 04:19	0	0.10865	0.12834	0.47297	0.18644	0.20202
02/01/2023 04:20	0	0.10664	0.12834	0.46847	0.18644	0.20202
02/01/2023 04:21	0	0.10664	0.12567	0.47297	0.18644	0.20202
02/01/2023 04:22	0	0.10664	0.12567	0.47297	0.18644	0.20202
02/01/2023 04:23	0	0.10463	0.12567	0.46847	0.18305	0.20202
02/01/2023 04:24	0	0.10463	0.12299	0.47297	0.18305	0.20034
02/01/2023 04:25	0	0.10463	0.12299	0.47297	0.18305	0.20034
02/01/2023 04:26	0	0.10262	0.12299	0.46847	0.18305	0.20034
02/01/2023 04:27	0	0.10262	0.12032	0.47297	0.18305	0.20034
02/01/2023 04:28	0	0.10262	0.12032	0.47297	0.17966	0.19865
02/01/2023 04:29	0	0.1006	0.12032	0.46847	0.17966	0.19865
02/01/2023 04:30	0	0.1006	0.11765	0.47297	0.17966	0.19865
02/01/2023 04:31	0	0.1006	0.11765	0.47297	0.17966	0.19865
02/01/2023 04:32	0	0.098592	0.11765	0.46847	0.17966	0.19697
02/01/2023 04:33	0	0.098592	0.11497	0.47297	0.17966	0.19697
02/01/2023 04:34	0	0.098592	0.11497	0.47297	0.17966	0.19697
02/01/2023 04:35	0	0.096579	0.11497	0.46847	0.17966	0.19697
02/01/2023 04:36	0	0.096579	0.1123	0.47297	0.17966	0.19697
02/01/2023 04:37	0	0.094567	0.1123	0.46847	0.17966	0.19697
02/01/2023 04:38	0	0.094567	0.10963	0.47297	0.17966	0.19697
02/01/2023 04:39	0	0.092555	0.10963	0.46847	0.17966	0.19697
02/01/2023 04:40	0	0.092555	0.10963	0.46847	0.17966	0.19697
02/01/2023 04:41	0	0.092555	0.10963	0.46847	0.17966	0.19697
02/01/2023 04:42	0	0.092555	0.10695	0.47297	0.17966	0.19697
02/01/2023 04:43	0	0.090543	0.10695	0.46847	0.17966	0.19529
02/01/2023 04:44	0	0.090543	0.10695	0.46847	0.17966	0.19529
02/01/2023 04:45	0	0.090543	0.10428	0.47297	0.17966	0.19529
02/01/2023 04:46	0	0.088531	0.10428	0.46847	0.17966	0.1936
02/01/2023 04:47	0	0.088531	0.10428	0.46847	0.18305	0.1936
02/01/2023 04:48	0	0.086519	0.1016	0.46847	0.18305	0.1936
02/01/2023 04:49	0	0.086519	0.1016	0.46847	0.18305	0.1936
02/01/2023 04:50	0	0.086519	0.1016	0.46847	0.18305	0.1936
02/01/2023 04:51	0	0.084507	0.09893	0.46847	0.18305	0.1936
02/01/2023 04:52	0	0.084507	0.09893	0.46847	0.18305	0.19192
02/01/2023 04:53	0	0.084507	0.096257	0.47297	0.18305	0.19192
02/01/2023 04:54	0	0.082495	0.096257	0.46847	0.18305	0.19192
02/01/2023 04:55	0	0.082495	0.096257	0.46847	0.17966	0.19192
02/01/2023 04:56	0	0.082495	0.093583	0.47297	0.17966	0.19192

02/01/2023 04:57	0	0.080483	0.093583	0.46847	0.17966	0.19192
02/01/2023 04:58	0	0.080483	0.093583	0.46847	0.17966	0.19192
02/01/2023 04:59	0	0.080483	0.093583	0.46847	0.17627	0.19024
02/01/2023 05:00	0	0.078471	0.090909	0.46847	0.17966	0.19024
02/01/2023 05:01	0	0.078471	0.090909	0.46847	0.17627	0.19024
02/01/2023 05:02	0	0.078471	0.090909	0.46847	0.17627	0.19024
02/01/2023 05:03	0	0.076459	0.088235	0.46847	0.17627	0.19024
02/01/2023 05:04	0	0.076459	0.088235	0.46847	0.17627	0.19024
02/01/2023 05:05	0	0.076459	0.088235	0.46847	0.17627	0.19024
02/01/2023 05:06	0	0.074447	0.085561	0.46847	0.17288	0.19024
02/01/2023 05:07	0	0.074447	0.085561	0.46847	0.17627	0.19024
02/01/2023 05:08	0	0.074447	0.085561	0.46847	0.17288	0.19024
02/01/2023 05:09	0	0.072435	0.082888	0.46847	0.17288	0.18855
02/01/2023 05:10	0	0.072435	0.082888	0.46847	0.17288	0.18855
02/01/2023 05:11	0	0.070423	0.082888	0.46396	0.17288	0.18855
02/01/2023 05:12	0	0.070423	0.080214	0.46847	0.17288	0.18855
02/01/2023 05:13	0	0.070423	0.080214	0.46847	0.17288	0.18855
02/01/2023 05:14	0	0.06841	0.07754	0.46847	0.17288	0.18855
02/01/2023 05:15	0	0.06841	0.07754	0.46847	0.17288	0.18687
02/01/2023 05:16	0	0.06841	0.07754	0.46847	0.17288	0.18687
02/01/2023 05:17	0	0.066398	0.07754	0.46396	0.17288	0.18687
02/01/2023 05:18	0	0.066398	0.074866	0.46847	0.17627	0.18687
02/01/2023 05:19	0	0.066398	0.074866	0.46847	0.17627	0.18687
02/01/2023 05:20	0	0.064386	0.072193	0.46847	0.17627	0.18687
02/01/2023 05:21	0	0.064386	0.072193	0.46847	0.17627	0.18519
02/01/2023 05:22	0	0.064386	0.072193	0.46847	0.17627	0.18519
02/01/2023 05:23	0	0.064386	0.072193	0.46847	0.17966	0.18519
02/01/2023 05:24	0	0.062374	0.069519	0.46847	0.17966	0.18519
02/01/2023 05:25	0	0.062374	0.069519	0.46847	0.17966	0.18519
02/01/2023 05:26	0	0.060362	0.069519	0.46396	0.17966	0.18519
02/01/2023 05:27	0	0.060362	0.066845	0.46847	0.18305	0.18519
02/01/2023 05:28	0	0.060362	0.066845	0.46847	0.17966	0.1835
02/01/2023 05:29	0	0.060362	0.064171	0.47297	0.17966	0.18519
02/01/2023 05:30	0	0.05835	0.064171	0.46847	0.18305	0.18519
02/01/2023 05:31	0	0.05835	0.064171	0.46847	0.18305	0.18519
02/01/2023 05:32	0	0.056338	0.064171	0.46396	0.18305	0.18519
02/01/2023 05:33	0	0.056338	0.061497	0.46847	0.18305	0.18519
02/01/2023 05:34	0	0.056338	0.061497	0.46847	0.18305	0.18519
02/01/2023 05:35	0	0.054326	0.061497	0.46396	0.18305	0.18519
02/01/2023 05:36	0	0.054326	0.058824	0.46847	0.18305	0.18519
02/01/2023 05:37	0	0.054326	0.058824	0.46847	0.18305	0.18519
02/01/2023 05:38	0	0.054326	0.058824	0.46847	0.17966	0.18519
02/01/2023 05:39	0	0.052314	0.058824	0.46396	0.17966	0.13973
02/01/2023 05:40	0	0.052314	0.05615	0.46847	0.17966	0.1229
02/01/2023 05:41	0	0.052314	0.05615	0.46847	0.17966	0.12121
02/01/2023 05:42	0	0.050302	0.05615	0.46396	0.17966	0.12121
02/01/2023 05:43	0	0.064386	0.072193	0.46847	0.17966	0.12121
02/01/2023 05:44	0	0.098592	0.2246	0.28829	0.17966	0.12121
02/01/2023 05:45	0.55	0.18109	0.23262	0.45946	0.17627	0.36532
02/01/2023 05:46	0.55	0.1831	0.16845	0.57207	0.16949	0.52694
02/01/2023 05:47	0.65	0.17907	0.14706	0.5991	0.15932	0.5404
02/01/2023 05:48	0.8	0.19316	0.14706	0.63063	0.14915	0.53535
02/01/2023 05:49	0.8	0.19316	0.14973	0.62613	0.15254	0.54209
02/01/2023 05:50	0.8	0.20121	0.15241	0.63964	0.15254	0.55724
02/01/2023 05:51	1	0.22133	0.16043	0.67117	0.15254	0.57912
02/01/2023 05:52	1	0.22938	0.1631	0.68468	0.15593	0.59091
02/01/2023 05:53	1	0.23742	0.17112	0.68919	0.15254	0.59764
02/01/2023 05:54	1	0.24547	0.17914	0.69369	0.15254	0.59764
02/01/2023 05:55	1	0.28571	0.24064	0.68018	0.14915	0.6229
02/01/2023 05:56	0.85	0.30584	0.2754	0.66667	0.13898	0.6431
02/01/2023 05:57	0.27	0.28169	0.31283	0.54955	0.13559	0.6431
02/01/2023 05:58	0	0.22334	0.3262	0.3964	0.13559	0.3771
02/01/2023 05:59	0.41	0.14085	0.29947	0.25676	0.13898	0.13131
02/01/2023 06:00	0.54	0.066398	0.27005	0.13964	0.14237	0.28283

02/01/2023 06:01	0	0.15694	0.22193	0.42342	0.14237	0.5202
02/01/2023 06:02	0.42	0.17505	0.2246	0.45946	0.14237	0.47138
02/01/2023 06:03	0.55	0.24748	0.24332	0.59009	0.14576	0.60101
02/01/2023 06:04	0.65	0.26559	0.26471	0.59459	0.14915	0.61785
02/01/2023 06:05	0.8	0.31992	0.30749	0.64414	0.14915	0.66162
02/01/2023 06:06	0.8	0.34608	0.34225	0.64414	0.15254	0.6835
02/01/2023 06:07	0.8	0.37223	0.37701	0.64414	0.15254	0.70034
02/01/2023 06:08	1	0.40241	0.40374	0.66667	0.14915	0.72222
02/01/2023 06:09	0.94	0.43863	0.4492	0.67117	0.15254	0.75758
02/01/2023 06:10	0.92	0.4668	0.48663	0.67117	0.15254	0.77778
02/01/2023 06:11	0.89	0.48692	0.52941	0.64414	0.15254	0.77778
02/01/2023 06:12	0.79	0.49899	0.55882	0.62162	0.14915	0.79461
02/01/2023 06:13	0.75	0.50905	0.58289	0.6036	0.14237	0.80808
02/01/2023 06:14	0.68	0.51911	0.60695	0.58559	0.13898	0.81818
02/01/2023 06:15	0.61	0.52716	0.62834	0.56757	0.14237	0.82997
02/01/2023 06:16	0.48	0.53722	0.65508	0.54505	0.14237	0.83838
02/01/2023 06:17	0.42	0.53722	0.67112	0.51802	0.13898	0.84007
02/01/2023 06:18	0	0.50704	0.68182	0.43243	0.13559	0.82828
02/01/2023 06:19	0	0.50302	0.66578	0.45045	0.1322	0.66498
02/01/2023 06:20	0	0.50302	0.64973	0.47748	0.12881	0.42929
02/01/2023 06:21	0	0.50302	0.63904	0.4955	0.1322	0.39731
02/01/2023 06:22	0	0.50704	0.62567	0.52703	0.1322	0.367
02/01/2023 06:23	0	0.50704	0.62032	0.53604	0.1322	0.35522
02/01/2023 06:24	0	0.50704	0.6123	0.54955	0.1322	0.34343
02/01/2023 06:25	0	0.50302	0.60695	0.54955	0.1322	0.33838
02/01/2023 06:26	0	0.50101	0.60428	0.54955	0.13559	0.3266
02/01/2023 06:27	0	0.49899	0.6016	0.54955	0.13559	0.32155
02/01/2023 06:28	0	0.49497	0.59626	0.54955	0.13898	0.31145
02/01/2023 06:29	0	0.49296	0.59358	0.54955	0.14237	0.3064
02/01/2023 06:30	0	0.49095	0.59091	0.54955	0.14237	0.30303
02/01/2023 06:31	0	0.48692	0.58556	0.54955	0.14576	0.29966
02/01/2023 06:32	0	0.4829	0.58289	0.54505	0.14915	0.29461
02/01/2023 06:33	0	0.48089	0.57754	0.54955	0.15254	0.29125
02/01/2023 06:34	0	0.47485	0.58556	0.52252	0.15254	0.28788
02/01/2023 06:35	0	0.44467	0.60695	0.41892	0.15254	0.28451
02/01/2023 06:36	0.17	0.25956	0.34225	0.45045	0.15593	0.28283
02/01/2023 06:37	0.55	0.26157	0.27005	0.57658	0.15593	0.58418
02/01/2023 06:38	0.57	0.25151	0.26471	0.56306	0.15254	0.60943
02/01/2023 06:39	0.77	0.29577	0.26738	0.65766	0.14915	0.63973
02/01/2023 06:40	0.8	0.29376	0.27005	0.64865	0.14576	0.64478
02/01/2023 06:41	0.8	0.29577	0.2754	0.64414	0.13898	0.64815
02/01/2023 06:42	0.82	0.2998	0.28075	0.64414	0.13898	0.65152
02/01/2023 06:43	1	0.32193	0.28877	0.68018	0.13559	0.66835
02/01/2023 06:44	1	0.32596	0.29412	0.68018	0.13559	0.67172
02/01/2023 06:45	1	0.32998	0.30481	0.67117	0.13559	0.65993
02/01/2023 06:46	1	0.3159	0.28342	0.67568	0.13898	0.65993
02/01/2023 06:47	1	0.28571	0.24599	0.67117	0.13898	0.63131
02/01/2023 06:48	1	0.27565	0.23797	0.66216	0.13898	0.62121
02/01/2023 06:49	1	0.27565	0.23797	0.66216	0.13898	0.6229
02/01/2023 06:50	1	0.27968	0.24332	0.66216	0.13898	0.62626
02/01/2023 06:51	1	0.28571	0.25401	0.65766	0.14237	0.63131
02/01/2023 06:52	1	0.29175	0.25936	0.66216	0.14237	0.63636
02/01/2023 06:53	1	0.29779	0.26738	0.66216	0.14237	0.64141
02/01/2023 06:54	1	0.30181	0.27273	0.66216	0.13559	0.64646
02/01/2023 06:55	1	0.30785	0.27807	0.66667	0.1322	0.64983
02/01/2023 06:56	1	0.31187	0.2861	0.66216	0.1322	0.65488
02/01/2023 06:57	1	0.31791	0.29412	0.66216	0.1322	0.65825
02/01/2023 06:58	1	0.32193	0.29947	0.66216	0.13559	0.6633
02/01/2023 06:59	1	0.32394	0.30481	0.65766	0.13559	0.66667
02/01/2023 07:00	1	0.32998	0.31283	0.65766	0.12881	0.67172
02/01/2023 07:01	1	0.33199	0.31818	0.65315	0.12881	0.67508
02/01/2023 07:02	1	0.33602	0.32353	0.65315	0.1322	0.67845
02/01/2023 07:03	1	0.34205	0.32888	0.65766	0.1322	0.68013
02/01/2023 07:04	1	0.34205	0.33422	0.64865	0.12203	0.6835

02/01/2023 07:05	1	0.34608	0.34225	0.64414	0.11864	0.68519
02/01/2023 07:06	0.99	0.34809	0.34492	0.64414	0.11864	0.68687
02/01/2023 07:07	1	0.35211	0.35027	0.64414	0.12203	0.68855
02/01/2023 07:08	1	0.35211	0.35294	0.63964	0.12542	0.69024
02/01/2023 07:09	1	0.35412	0.35829	0.63514	0.12542	0.69192
02/01/2023 07:10	1	0.35815	0.36096	0.63964	0.12881	0.6936
02/01/2023 07:11	1	0.35815	0.36364	0.63514	0.13559	0.69529
02/01/2023 07:12	0.91	0.34406	0.3369	0.64865	0.14237	0.69697
02/01/2023 07:13	0.72	0.3159	0.33155	0.59459	0.14237	0.65825
02/01/2023 07:14	0.7	0.34809	0.39305	0.56306	0.13898	0.66835
02/01/2023 07:15	0.7	0.39839	0.46257	0.55856	0.13898	0.7037
02/01/2023 07:16	0.7	0.47082	0.5508	0.57207	0.13898	0.77609
02/01/2023 07:17	0.7	0.48893	0.57487	0.57207	0.14237	0.79966
02/01/2023 07:18	0.7	0.50302	0.59626	0.56757	0.14915	0.8165
02/01/2023 07:19	0.7	0.50905	0.60428	0.56757	0.14915	0.82323
02/01/2023 07:20	0.2	0.28974	0.35294	0.5	0.14576	0.72222
02/01/2023 07:21	0.55	0.23541	0.34492	0.39189	0.14576	0.19024
02/01/2023 07:22	0.5	0.17706	0.34225	0.26577	0.14576	0.10943
02/01/2023 07:23	0.5	0.16097	0.33957	0.23423	0.14576	0.18855
02/01/2023 07:24	0	0.21328	0.33422	0.36036	0.14576	0.46801
02/01/2023 07:25	0	0.4326	0.58556	0.42793	0.14576	0.42088
02/01/2023 07:26	0.55	0.48089	0.60695	0.5	0.14576	0.72391
02/01/2023 07:27	0.55	0.50503	0.6123	0.54505	0.14576	0.80471
02/01/2023 07:28	0.7	0.52113	0.61765	0.57207	0.14915	0.84007
02/01/2023 07:29	0.7	0.52716	0.62032	0.58108	0.14915	0.84512
02/01/2023 07:30	0.7	0.5332	0.62299	0.59009	0.14915	0.8468
02/01/2023 07:31	0.7	0.53119	0.62299	0.58559	0.14576	0.8468
02/01/2023 07:32	0.7	0.53521	0.62567	0.59009	0.13898	0.8468
02/01/2023 07:33	0.7	0.53722	0.62834	0.59009	0.14576	0.85017
02/01/2023 07:34	0.7	0.54326	0.63636	0.59009	0.14237	0.83502
02/01/2023 07:35	0.7	0.54527	0.64171	0.58559	0.14237	0.82155
02/01/2023 07:36	0.7	0.55131	0.65241	0.58108	0.14576	0.8165
02/01/2023 07:37	0.7	0.55332	0.6631	0.56757	0.14576	0.81818
02/01/2023 07:38	0.7	0.55533	0.67112	0.55856	0.14237	0.82323
02/01/2023 07:39	0.7	0.55936	0.67647	0.55856	0.1322	0.84343
02/01/2023 07:40	0.7	0.56539	0.68449	0.55856	0.12881	0.8569
02/01/2023 07:41	0.7	0.56942	0.69251	0.55405	0.12542	0.86195
02/01/2023 07:42	0.7	0.57948	0.69786	0.56757	0.12881	0.867
02/01/2023 07:43	0.7	0.5835	0.70321	0.56757	0.13559	0.87205
02/01/2023 07:44	0.7	0.59155	0.71123	0.57207	0.13559	0.87879
02/01/2023 07:45	0.7	0.59557	0.7139	0.57658	0.13559	0.88552
02/01/2023 07:46	0.7	0.60362	0.72193	0.58108	0.13559	0.89226
02/01/2023 07:47	0.7	0.60966	0.72727	0.58559	0.13559	0.89562
02/01/2023 07:48	0.7	0.61368	0.72995	0.59009	0.13559	0.90067
02/01/2023 07:49	0.7	0.61771	0.74064	0.58108	0.14237	0.90572
02/01/2023 07:50	0.7	0.62374	0.74866	0.58108	0.14237	0.91077
02/01/2023 07:51	0.7	0.62777	0.75401	0.58108	0.14576	0.91414
02/01/2023 07:52	0.78	0.27565	0.24866	0.64414	0.14576	0.88552
02/01/2023 07:53	0.8	0.27767	0.24064	0.66216	0.14237	0.66835
02/01/2023 07:54	0.8	0.27565	0.24332	0.65315	0.13559	0.60774
02/01/2023 07:55	0.9	0.27968	0.24866	0.65315	0.12881	0.61953
02/01/2023 07:56	1	0.30181	0.25668	0.68919	0.12542	0.63973
02/01/2023 07:57	1	0.30584	0.26738	0.68018	0.12203	0.6532
02/01/2023 07:58	1	0.31187	0.2754	0.68018	0.12203	0.65825
02/01/2023 07:59	1	0.31388	0.28075	0.67568	0.12542	0.66162
02/01/2023 08:00	1	0.31992	0.28877	0.67568	0.1322	0.66667
02/01/2023 08:01	1	0.32394	0.29412	0.67568	0.14237	0.67003
02/01/2023 08:02	1	0.32596	0.29947	0.67117	0.14237	0.67508
02/01/2023 08:03	1	0.32998	0.30481	0.67117	0.14237	0.67677
02/01/2023 08:04	1	0.33602	0.31283	0.67117	0.14576	0.68182
02/01/2023 08:05	1	0.33803	0.31818	0.66667	0.14915	0.6835
02/01/2023 08:06	1	0.34406	0.32353	0.67117	0.15254	0.68687
02/01/2023 08:07	1	0.34608	0.32888	0.66667	0.14915	0.68855
02/01/2023 08:08	1	0.3501	0.33422	0.66667	0.15593	0.69192

02/01/2023 08:09	0.99	0.35211	0.33957	0.66216	0.15593	0.6936
02/01/2023 08:10	1	0.35412	0.34492	0.65766	0.13898	0.69697
02/01/2023 08:11	1	0.35815	0.35027	0.65766	0.12881	0.69697
02/01/2023 08:12	1	0.36217	0.35561	0.65766	0.1322	0.70034
02/01/2023 08:13	1	0.36419	0.35829	0.65766	0.12881	0.70034
02/01/2023 08:14	0.99	0.3662	0.36364	0.65315	0.12881	0.7037
02/01/2023 08:15	1	0.36821	0.36631	0.65315	0.1322	0.70539
02/01/2023 08:16	1	0.37223	0.37166	0.65315	0.13898	0.70875
02/01/2023 08:17	1	0.37425	0.37433	0.65315	0.14237	0.71044
02/01/2023 08:18	0.99	0.37626	0.37968	0.64865	0.15254	0.71212
02/01/2023 08:19	1	0.37827	0.38235	0.64865	0.15254	0.7138
02/01/2023 08:20	1	0.38229	0.3877	0.64865	0.15593	0.71717
02/01/2023 08:21	1	0.38229	0.39037	0.64414	0.15593	0.71886
02/01/2023 08:22	1	0.38632	0.39305	0.64865	0.15593	0.72054
02/01/2023 08:23	1	0.38632	0.39572	0.64414	0.15932	0.72222
02/01/2023 08:24	1	0.38431	0.40107	0.63063	0.1661	0.72391
02/01/2023 08:25	0.51	0.35412	0.40374	0.55856	0.16949	0.70034
02/01/2023 08:26	0	0.2998	0.40642	0.43243	0.17288	0.41246
02/01/2023 08:27	0.41	0.29779	0.40642	0.42793	0.17288	0.14141
02/01/2023 08:28	0.55	0.22938	0.40374	0.27928	0.17288	0.065657
02/01/2023 08:29	0.5	0.21932	0.40107	0.26126	0.17288	0.133
02/01/2023 08:30	0	0.21127	0.39305	0.25676	0.17627	0.367
02/01/2023 08:31	0	0.26962	0.38503	0.4009	0.17966	0.44444
02/01/2023 08:32	0.49	0.31388	0.36631	0.53153	0.17966	0.61279
02/01/2023 08:33	0.55	0.32193	0.35561	0.56757	0.18305	0.66835
02/01/2023 08:34	0.77	0.33199	0.34759	0.6036	0.18305	0.68182
02/01/2023 08:35	0.8	0.34608	0.34759	0.63514	0.18644	0.69192
02/01/2023 08:36	0.8	0.35211	0.35294	0.63964	0.17627	0.68519
02/01/2023 08:37	0.8	0.35412	0.35561	0.63964	0.17627	0.6936
02/01/2023 08:38	1	0.37827	0.36364	0.68018	0.17966	0.70707
02/01/2023 08:39	1	0.38028	0.36631	0.68018	0.17966	0.70875
02/01/2023 08:40	1	0.38632	0.37166	0.68468	0.18305	0.7037
02/01/2023 08:41	1	0.38028	0.37701	0.66216	0.18644	0.69192
02/01/2023 08:42	1	0.38431	0.38235	0.66216	0.18644	0.70707
02/01/2023 08:43	1	0.38632	0.38503	0.66216	0.19322	0.71212
02/01/2023 08:44	1	0.39034	0.39037	0.66216	0.19322	0.71886
02/01/2023 08:45	1	0.39437	0.39572	0.66216	0.19322	0.72222
02/01/2023 08:46	1	0.39839	0.3984	0.66667	0.19661	0.72559
02/01/2023 08:47	1	0.40241	0.40374	0.66667	0.19661	0.72896
02/01/2023 08:48	1	0.40644	0.40642	0.67117	0.20339	0.73401
02/01/2023 08:49	1	0.41046	0.41176	0.67117	0.20678	0.73569
02/01/2023 08:50	1	0.4165	0.41711	0.67568	0.21017	0.74074
02/01/2023 08:51	0.99	0.41851	0.41979	0.67568	0.21017	0.74411
02/01/2023 08:52	1	0.42052	0.42246	0.67568	0.21695	0.74747
02/01/2023 08:53	1	0.42455	0.42781	0.67568	0.21695	0.75084
02/01/2023 08:54	1	0.42857	0.43316	0.67568	0.22034	0.75253
02/01/2023 08:55	1	0.42857	0.43583	0.67117	0.21695	0.75589
02/01/2023 08:56	0.99	0.43461	0.4385	0.68018	0.21356	0.75758
02/01/2023 08:57	1	0.43863	0.44385	0.68018	0.21695	0.76094
02/01/2023 08:58	1	0.44064	0.4492	0.67568	0.22034	0.76431
02/01/2023 08:59	0.98	0.44266	0.45187	0.67568	0.22373	0.76599
02/01/2023 09:00	0.99	0.44467	0.45722	0.67117	0.2339	0.76768
02/01/2023 09:01	1	0.44869	0.46257	0.67117	0.23051	0.77104
02/01/2023 09:02	0.99	0.4507	0.46524	0.67117	0.22712	0.77273
02/01/2023 09:03	1	0.45473	0.46791	0.67568	0.22712	0.77441
02/01/2023 09:04	0.98	0.45473	0.47326	0.66667	0.24068	0.77778
02/01/2023 09:05	1	0.46076	0.47594	0.67568	0.24407	0.77946
02/01/2023 09:06	1	0.46076	0.48128	0.66667	0.25085	0.78114
02/01/2023 09:07	1	0.46278	0.48396	0.66667	0.25424	0.78283
02/01/2023 09:08	1	0.4668	0.48663	0.67117	0.26102	0.78451
02/01/2023 09:09	1	0.46881	0.4893	0.67117	0.26441	0.78788
02/01/2023 09:10	0.99	0.46881	0.49465	0.66216	0.26441	0.78788
02/01/2023 09:11	0.99	0.47082	0.49733	0.66216	0.26441	0.78956
02/01/2023 09:12	0.99	0.47284	0.5	0.66216	0.26441	0.79125

Time	Comp_freq	Tw_wex_out	Tw_wex_in	Tw_wex_delta	Air_Temp	TR_wex_out
02/01/2023 09:13	0.99	0.47485	0.50267	0.66216	0.27119	0.79461
02/01/2023 09:14	0.99	0.47686	0.50535	0.66216	0.27797	0.7963
02/01/2023 09:15	0.99	0.47686	0.50802	0.65766	0.28475	0.79798
02/01/2023 09:16	0.99	0.47887	0.5107	0.65766	0.28475	0.79966
02/01/2023 09:17	0.99	0.48089	0.51337	0.65766	0.28814	0.80135
02/01/2023 09:18	1	0.4829	0.51604	0.65766	0.29153	0.80303
02/01/2023 09:19	0.99	0.48491	0.51872	0.65766	0.29492	0.80303
02/01/2023 09:20	0.99	0.48491	0.52139	0.65315	0.29831	0.80471
02/01/2023 09:21	1	0.48692	0.52406	0.65315	0.29831	0.8064
02/01/2023 09:22	0.99	0.48692	0.52406	0.65315	0.29831	0.8064
02/01/2023 09:23	1	0.48893	0.52674	0.65315	0.30169	0.80808
02/01/2023 09:24	0.99	0.48893	0.52941	0.64865	0.29831	0.80976
02/01/2023 09:25	0.99	0.48893	0.52941	0.64865	0.29831	0.80976
02/01/2023 09:26	0.99	0.49095	0.53209	0.64865	0.29831	0.81145
02/01/2023 09:27	0.99	0.49095	0.53476	0.64414	0.30169	0.81145
02/01/2023 09:28	0.99	0.49296	0.53743	0.64414	0.30508	0.81145
02/01/2023 09:29	0.98	0.49095	0.53743	0.63964	0.30508	0.81145
02/01/2023 09:30	0.99	0.49296	0.54011	0.63964	0.30847	0.81145
02/01/2023 09:31	0.73	0.46479	0.54011	0.57658	0.30847	0.79125
02/01/2023 09:32	0	0.42052	0.54011	...		

Table for month 3

Time	Comp_freq	Tw_wex_out	Tw_wex_in	Tw_wex_delta	Air_Temp	TR_wex_out
03/01/2023 00:00	0.74	0.5493	0.6123	0.64414	0.32203	0.85017
03/01/2023 00:01	0.64	0.55936	0.64439	0.61261	0.32203	0.86027
03/01/2023 00:02	0.22	0.54326	0.67647	0.52252	0.32203	0.86364
03/01/2023 00:03	0	0.50905	0.68449	0.43243	0.32203	0.8266
03/01/2023 00:04	0	0.50503	0.66578	0.45495	0.32203	0.50168
03/01/2023 00:05	0	0.50302	0.6631	0.45495	0.32203	0.44949
03/01/2023 00:06	0	0.50302	0.65775	0.46396	0.32203	0.44108
03/01/2023 00:07	0	0.48893	0.64706	0.45045	0.32203	0.44276
03/01/2023 00:08	0	0.48491	0.64973	0.43694	0.32203	0.44613
03/01/2023 00:09	0	0.47887	0.60695	0.4955	0.32203	0.44613
03/01/2023 00:10	0	0.43058	0.54813	0.48649	0.32542	0.43939
03/01/2023 00:11	0	0.40443	0.51604	0.48198	0.32542	0.43266
03/01/2023 00:12	0.17	0.334	0.4492	0.43694	0.32881	0.42256
03/01/2023 00:13	0.55	0.36821	0.44385	0.52252	0.32542	0.62121
03/01/2023 00:14	0.58	0.39235	0.4385	0.58559	0.32203	0.72222
03/01/2023 00:15	0.76	0.42455	0.43583	0.66216	0.32203	0.73906
03/01/2023 00:16	0.8	0.42254	0.43583	0.65766	0.32203	0.74916
03/01/2023 00:17	0.8	0.42455	0.44118	0.65315	0.31864	0.75589
03/01/2023 00:18	0.84	0.42857	0.44652	0.65315	0.31864	0.75926
03/01/2023 00:19	0.99	0.4507	0.45455	0.68919	0.31525	0.77104
03/01/2023 00:20	0.99	0.45674	0.46257	0.68919	0.31525	0.77946
03/01/2023 00:21	0.99	0.46076	0.47326	0.68018	0.31186	0.78283
03/01/2023 00:22	0.99	0.4668	0.47861	0.68468	0.31186	0.78451
03/01/2023 00:23	0.99	0.47284	0.48663	0.68468	0.30847	0.78788
03/01/2023 00:24	0.99	0.47686	0.49465	0.68018	0.30847	0.79293
03/01/2023 00:25	0.99	0.48491	0.50267	0.68468	0.30847	0.79798
03/01/2023 00:26	0.99	0.48893	0.50802	0.68468	0.30847	0.80303
03/01/2023 00:27	0.99	0.49296	0.51604	0.68018	0.30847	0.80808
03/01/2023 00:28	0.98	0.49899	0.52406	0.68018	0.30847	0.81313
03/01/2023 00:29	0.98	0.50503	0.53209	0.68018	0.30508	0.8165
03/01/2023 00:30	0.96	0.50905	0.53743	0.68018	0.30847	0.82155
03/01/2023 00:31	0.95	0.51107	0.54278	0.67568	0.30508	0.82323
03/01/2023 00:32	0.93	0.51509	0.5508	0.67117	0.30508	0.82828
03/01/2023 00:33	0.91	0.51911	0.55882	0.66667	0.30847	0.82997
03/01/2023 00:34	0.88	0.52113	0.56417	0.66216	0.31186	0.83333
03/01/2023 00:35	0.86	0.52314	0.56952	0.65766	0.31525	0.83502
03/01/2023 00:36	0.81	0.52314	0.57487	0.64865	0.31864	0.8367
03/01/2023 00:37	0.8	0.52515	0.58021	0.64414	0.32203	0.83838
03/01/2023 00:38	0.75	0.52515	0.58556	0.63514	0.32203	0.83838
03/01/2023 00:39	0.73	0.52314	0.59091	0.62162	0.31525	0.83838

03/01/2023 00:40	0.68	0.52314	0.59358	0.61712	0.31186	0.83838
03/01/2023 00:41	0.66	0.52113	0.6016	0.5991	0.30847	0.8367
03/01/2023 00:42	0.61	0.52113	0.60428	0.59459	0.30508	0.83502
03/01/2023 00:43	0.25	0.46076	0.60695	0.45495	0.30508	0.82997
03/01/2023 00:44	0	0.4507	0.60695	0.43243	0.30508	0.75084
03/01/2023 00:45	0	0.4507	0.60695	0.43243	0.30508	0.44949
03/01/2023 00:46	0	0.44869	0.6016	0.43694	0.30508	0.41919
03/01/2023 00:47	0	0.44668	0.59893	0.43694	0.30508	0.39731
03/01/2023 00:48	0	0.44467	0.59626	0.43694	0.30508	0.38889
03/01/2023 00:49	0	0.44064	0.58824	0.44144	0.30508	0.38215
03/01/2023 00:50	0	0.43662	0.58289	0.44144	0.30508	0.3771
03/01/2023 00:51	0	0.43058	0.57754	0.43694	0.30508	0.36869
03/01/2023 00:52	0	0.42656	0.57219	0.43694	0.30847	0.37037
03/01/2023 00:53	0	0.42254	0.56417	0.44144	0.30847	0.37879
03/01/2023 00:54	0	0.41851	0.5615	0.43694	0.30847	0.38384
03/01/2023 00:55	0	0.41449	0.55615	0.43694	0.30847	0.39226
03/01/2023 00:56	0	0.41247	0.5508	0.44144	0.31186	0.39562
03/01/2023 00:57	0	0.41046	0.5508	0.43694	0.31186	0.39899
03/01/2023 00:58	0	0.41046	0.54813	0.44144	0.31525	0.39899
03/01/2023 00:59	0	0.40845	0.54545	0.44144	0.31525	0.39731
03/01/2023 01:00	0	0.40644	0.54011	0.44595	0.31525	0.39731
03/01/2023 01:01	0	0.40443	0.53743	0.44595	0.31864	0.39394
03/01/2023 01:02	0	0.40241	0.53476	0.44595	0.31864	0.39057
03/01/2023 01:03	0	0.4004	0.52941	0.45045	0.31864	0.38721
03/01/2023 01:04	0	0.39839	0.52406	0.45495	0.31864	0.38384
03/01/2023 01:05	0	0.39839	0.52139	0.45946	0.32203	0.38215
03/01/2023 01:06	0	0.39638	0.51872	0.45946	0.32203	0.37879
03/01/2023 01:07	0	0.39437	0.51604	0.45946	0.32203	0.3771
03/01/2023 01:08	0	0.39235	0.5107	0.46396	0.32203	0.37374
03/01/2023 01:09	0	0.39034	0.50802	0.46396	0.32203	0.37205
03/01/2023 01:10	0	0.38833	0.50535	0.46396	0.32203	0.36869
03/01/2023 01:11	0	0.38632	0.50267	0.46396	0.32542	0.367
03/01/2023 01:12	0	0.38431	0.49733	0.46847	0.32542	0.36364
03/01/2023 01:13	0	0.38229	0.49733	0.46396	0.32542	0.36195
03/01/2023 01:14	0	0.38028	0.49198	0.46847	0.32542	0.36027
03/01/2023 01:15	0	0.37827	0.4893	0.46847	0.32542	0.35859
03/01/2023 01:16	0	0.37827	0.48663	0.47297	0.32542	0.3569
03/01/2023 01:17	0	0.37626	0.48396	0.47297	0.32542	0.35522
03/01/2023 01:18	0	0.37425	0.48128	0.47297	0.32542	0.35354
03/01/2023 01:19	0	0.37223	0.47594	0.47748	0.32542	0.35185
03/01/2023 01:20	0	0.37022	0.47326	0.47748	0.32542	0.35017
03/01/2023 01:21	0	0.36821	0.47059	0.47748	0.32542	0.34848
03/01/2023 01:22	0	0.3662	0.46791	0.47748	0.32542	0.3468
03/01/2023 01:23	0	0.36419	0.46524	0.47748	0.32542	0.34512
03/01/2023 01:24	0	0.36419	0.46257	0.48198	0.32881	0.34343
03/01/2023 01:25	0	0.36217	0.45989	0.48198	0.32881	0.34007
03/01/2023 01:26	0	0.36016	0.45722	0.48198	0.32881	0.33838
03/01/2023 01:27	0	0.35815	0.45455	0.48198	0.32881	0.3367
03/01/2023 01:28	0	0.35614	0.45187	0.48198	0.32881	0.33502
03/01/2023 01:29	0	0.35614	0.4492	0.48649	0.32881	0.33165
03/01/2023 01:30	0	0.35412	0.44652	0.48649	0.3322	0.32997
03/01/2023 01:31	0	0.35211	0.44385	0.48649	0.32881	0.3266
03/01/2023 01:32	0	0.3501	0.44118	0.48649	0.3322	0.32492
03/01/2023 01:33	0	0.34809	0.4385	0.48649	0.3322	0.32323
03/01/2023 01:34	0	0.34608	0.43583	0.48649	0.3322	0.31987
03/01/2023 01:35	0	0.34608	0.43316	0.49099	0.3322	0.31818
03/01/2023 01:36	0	0.34406	0.43316	0.48649	0.3322	0.3165
03/01/2023 01:37	0	0.34205	0.43048	0.48649	0.3322	0.31481
03/01/2023 01:38	0	0.34004	0.42781	0.48649	0.3322	0.31313
03/01/2023 01:39	0	0.33803	0.42781	0.48198	0.3322	0.31313
03/01/2023 01:40	0	0.33602	0.42246	0.48649	0.3322	0.31145
03/01/2023 01:41	0	0.33602	0.42246	0.48649	0.33559	0.31145
03/01/2023 01:42	0	0.334	0.41979	0.48649	0.33559	0.30976
03/01/2023 01:43	0	0.33199	0.41711	0.48649	0.33559	0.30808

03/01/2023 01:44	0	0.32998	0.41711	0.48198	0.33559	0.30808
03/01/2023 01:45	0	0.32797	0.41176	0.48649	0.33898	0.3064
03/01/2023 01:46	0	0.32797	0.41176	0.48649	0.33898	0.3064
03/01/2023 01:47	0	0.32596	0.40909	0.48649	0.33898	0.3064
03/01/2023 01:48	0	0.32394	0.40642	0.48649	0.33898	0.30471
03/01/2023 01:49	0	0.32394	0.40642	0.48649	0.33898	0.30471
03/01/2023 01:50	0	0.32193	0.40374	0.48649	0.33898	0.30471
03/01/2023 01:51	0	0.31992	0.40107	0.48649	0.33898	0.30303
03/01/2023 01:52	0	0.31992	0.3984	0.49099	0.33898	0.30303
03/01/2023 01:53	0	0.31791	0.3984	0.48649	0.33898	0.30303
03/01/2023 01:54	0	0.3159	0.39572	0.48649	0.33898	0.30135
03/01/2023 01:55	0	0.3159	0.39305	0.49099	0.33898	0.30135
03/01/2023 01:56	0	0.31388	0.39037	0.49099	0.33898	0.29966
03/01/2023 01:57	0	0.31187	0.39037	0.48649	0.33898	0.29966
03/01/2023 01:58	0	0.31187	0.3877	0.49099	0.33898	0.29966
03/01/2023 01:59	0	0.30986	0.38503	0.49099	0.34237	0.29798
03/01/2023 02:00	0	0.30785	0.38503	0.48649	0.34237	0.2963
03/01/2023 02:01	0	0.30785	0.38235	0.49099	0.34237	0.2963
03/01/2023 02:02	0	0.30584	0.37968	0.49099	0.34237	0.2963
03/01/2023 02:03	0	0.30584	0.37968	0.49099	0.34237	0.2963
03/01/2023 02:04	0	0.30382	0.37701	0.49099	0.34237	0.29461
03/01/2023 02:05	0	0.30382	0.37433	0.4955	0.34237	0.29461
03/01/2023 02:06	0	0.30181	0.37433	0.49099	0.34237	0.29461
03/01/2023 02:07	0	0.2998	0.37166	0.49099	0.34237	0.29293
03/01/2023 02:08	0	0.29779	0.36898	0.49099	0.34237	0.29293
03/01/2023 02:09	0	0.29779	0.36631	0.4955	0.34237	0.29293
03/01/2023 02:10	0	0.29577	0.36631	0.49099	0.34237	0.29125
03/01/2023 02:11	0	0.29376	0.36364	0.49099	0.34237	0.29125
03/01/2023 02:12	0	0.29376	0.36096	0.4955	0.34237	0.29125
03/01/2023 02:13	0	0.29175	0.36096	0.49099	0.34237	0.28956
03/01/2023 02:14	0	0.29175	0.35829	0.4955	0.34237	0.28956
03/01/2023 02:15	0	0.28974	0.35561	0.4955	0.34237	0.28956
03/01/2023 02:16	0	0.28974	0.35561	0.4955	0.34237	0.28956
03/01/2023 02:17	0	0.28773	0.35294	0.4955	0.34237	0.28788
03/01/2023 02:18	0	0.28571	0.35027	0.4955	0.34237	0.28788
03/01/2023 02:19	0	0.28571	0.34759	0.5	0.34237	0.2862
03/01/2023 02:20	0	0.2837	0.34759	0.4955	0.34237	0.2862
03/01/2023 02:21	0	0.28169	0.34492	0.4955	0.34237	0.2862
03/01/2023 02:22	0	0.28169	0.34492	0.4955	0.34237	0.2862
03/01/2023 02:23	0	0.27968	0.34225	0.4955	0.34237	0.28451
03/01/2023 02:24	0	0.27767	0.34225	0.49099	0.33898	0.28451
03/01/2023 02:25	0	0.27767	0.33957	0.4955	0.33898	0.28283
03/01/2023 02:26	0	0.27565	0.3369	0.4955	0.33898	0.28283
03/01/2023 02:27	0	0.27565	0.3369	0.4955	0.33898	0.28283
03/01/2023 02:28	0	0.27364	0.33422	0.4955	0.33898	0.28283
03/01/2023 02:29	0	0.27364	0.33155	0.5	0.33898	0.28283
03/01/2023 02:30	0	0.27163	0.33155	0.4955	0.33898	0.28114
03/01/2023 02:31	0	0.26962	0.32888	0.4955	0.33898	0.28114
03/01/2023 02:32	0	0.26962	0.3262	0.5	0.33898	0.28114
03/01/2023 02:33	0	0.26761	0.3262	0.4955	0.33898	0.28114
03/01/2023 02:34	0	0.26559	0.32353	0.4955	0.33898	0.27946
03/01/2023 02:35	0	0.26559	0.32353	0.4955	0.33559	0.27946
03/01/2023 02:36	0	0.26358	0.32086	0.4955	0.33559	0.20034
03/01/2023 02:37	0	0.26157	0.31818	0.4955	0.33559	0.19024
03/01/2023 02:38	0	0.26157	0.31551	0.5	0.33559	0.19024
03/01/2023 02:39	0	0.25956	0.31551	0.4955	0.3322	0.1936
03/01/2023 02:40	0	0.25956	0.31283	0.5	0.3322	0.1936
03/01/2023 02:41	0	0.25755	0.31283	0.4955	0.3322	0.19697
03/01/2023 02:42	0	0.25755	0.31016	0.5	0.3322	0.19697
03/01/2023 02:43	0	0.25553	0.30749	0.5	0.3322	0.21044
03/01/2023 02:44	0	0.25553	0.30749	0.5	0.3322	0.21717
03/01/2023 02:45	0	0.25352	0.30481	0.5	0.3322	0.22559
03/01/2023 02:46	0	0.25151	0.30481	0.4955	0.3322	0.22896
03/01/2023 02:47	0	0.25151	0.30214	0.5	0.32881	0.23401

03/01/2023 02:48	0	0.2495	0.29947	0.5	0.32881	0.23737
03/01/2023 02:49	0	0.2495	0.29947	0.5	0.32881	0.24074
03/01/2023 02:50	0	0.24748	0.29679	0.5	0.32881	0.24242
03/01/2023 02:51	0	0.24547	0.35294	0.4009	0.32881	0.24579
03/01/2023 02:52	0	0.26358	0.35027	0.44595	0.32542	0.24579
03/01/2023 02:53	0.55	0.25755	0.28075	0.54955	0.32203	0.53704
03/01/2023 02:54	0.55	0.26358	0.27273	0.57658	0.31525	0.61111
03/01/2023 02:55	0.8	0.29175	0.27005	0.64414	0.30847	0.63973
03/01/2023 02:56	0.8	0.29779	0.27273	0.65315	0.30508	0.65152
03/01/2023 02:57	0.8	0.30181	0.2754	0.65766	0.30169	0.65657
03/01/2023 02:58	0.8	0.30584	0.28075	0.65766	0.30169	0.65825
03/01/2023 02:59	1	0.32998	0.29144	0.69369	0.30169	0.67677
03/01/2023 03:00	1	0.33602	0.29679	0.6982	0.29831	0.6835
03/01/2023 03:01	1	0.34205	0.30749	0.69369	0.29831	0.6835
03/01/2023 03:02	0.78	0.33803	0.31551	0.67117	0.29831	0.68687
03/01/2023 03:03	0	0.27767	0.32888	0.51351	0.29492	0.6532
03/01/2023 03:04	0	0.24547	0.33422	0.43243	0.29492	0.29293
03/01/2023 03:05	0.55	0.15292	0.33957	0.21622	0.29492	0.19024
03/01/2023 03:06	0.43	0.17103	0.34225	0.25225	0.29831	0.367
03/01/2023 03:07	0	0.24346	0.33155	0.43243	0.29831	0.4899
03/01/2023 03:08	0.55	0.29779	0.31551	0.58108	0.29492	0.60606
03/01/2023 03:09	0.55	0.31992	0.34225	0.58559	0.29492	0.66667
03/01/2023 03:10	0.73	0.35614	0.36364	0.63063	0.29492	0.68855
03/01/2023 03:11	0.8	0.40443	0.40909	0.66216	0.29153	0.73064
03/01/2023 03:12	0.8	0.42656	0.44118	0.65766	0.29153	0.75084
03/01/2023 03:13	0.8	0.46278	0.49198	0.65315	0.28814	0.77778
03/01/2023 03:14	0.88	0.49095	0.52406	0.66216	0.29153	0.79798
03/01/2023 03:15	0.79	0.51911	0.57219	0.64414	0.28814	0.82155
03/01/2023 03:16	0.69	0.52515	0.59358	0.62162	0.29153	0.83165
03/01/2023 03:17	0.6	0.54125	0.63369	0.59009	0.29153	0.83838
03/01/2023 03:18	0.49	0.53924	0.64973	0.55856	0.29153	0.8468
03/01/2023 03:19	0	0.39638	0.51337	0.46847	0.29153	0.84343
03/01/2023 03:20	0	0.31992	0.42781	0.44144	0.29153	0.67172
03/01/2023 03:21	0	0.27968	0.37701	0.43694	0.29153	0.42424
03/01/2023 03:22	0	0.27565	0.37433	0.43243	0.29153	0.40067
03/01/2023 03:23	0	0.27565	0.37433	0.43243	0.28814	0.38047
03/01/2023 03:24	0.19	0.27565	0.37166	0.43694	0.28814	0.367
03/01/2023 03:25	0.55	0.32797	0.36631	0.56306	0.28814	0.64646
03/01/2023 03:26	0.59	0.33602	0.36096	0.59009	0.28475	0.67677
03/01/2023 03:27	0.8	0.36419	0.36096	0.65315	0.28475	0.70034
03/01/2023 03:28	0.8	0.3662	0.36364	0.65315	0.28136	0.7037
03/01/2023 03:29	0.8	0.37022	0.36898	0.65315	0.28136	0.70875
03/01/2023 03:30	0.91	0.37626	0.37701	0.65315	0.28136	0.71212
03/01/2023 03:31	1	0.4004	0.3877	0.68919	0.28475	0.72896
03/01/2023 03:32	0.98	0.40443	0.39305	0.68919	0.28136	0.73737
03/01/2023 03:33	1	0.40644	0.3984	0.68468	0.28136	0.73064
03/01/2023 03:34	1	0.41046	0.40909	0.67568	0.28136	0.73906
03/01/2023 03:35	0.99	0.41851	0.41979	0.67568	0.27797	0.74411
03/01/2023 03:36	1	0.42254	0.42781	0.67117	0.27797	0.75084
03/01/2023 03:37	1	0.42857	0.43316	0.67568	0.27458	0.75589
03/01/2023 03:38	1	0.43461	0.44118	0.67568	0.27797	0.75926
03/01/2023 03:39	0.98	0.44064	0.44652	0.68018	0.27797	0.76431
03/01/2023 03:40	0.99	0.44869	0.45722	0.68018	0.28136	0.77104
03/01/2023 03:41	0.98	0.45674	0.46791	0.68018	0.28136	0.77441
03/01/2023 03:42	0.98	0.46278	0.47326	0.68468	0.28475	0.78114
03/01/2023 03:43	1	0.46881	0.48128	0.68468	0.28814	0.78451
03/01/2023 03:44	0.97	0.50905	0.53743	0.68018	0.28814	0.80976
03/01/2023 03:45	0.9	0.53119	0.57219	0.67117	0.28475	0.83165
03/01/2023 03:46	0.8	0.56539	0.62834	0.65315	0.28136	0.86027
03/01/2023 03:47	0.68	0.58149	0.6631	0.63063	0.27797	0.87205
03/01/2023 03:48	0	0.54728	0.68984	0.50901	0.28136	0.86869
03/01/2023 03:49	0	0.5171	0.69251	0.43694	0.28136	0.81987
03/01/2023 03:50	0	0.51308	0.67914	0.45045	0.28475	0.48485
03/01/2023 03:51	0	0.51308	0.67647	0.45495	0.28475	0.44613

03/01/2023 03:52	0	0.51308	0.67112	0.46396	0.28475	0.41077
03/01/2023 03:53	0	0.51509	0.66578	0.47748	0.28475	0.38721
03/01/2023 03:54	0	0.51509	0.65775	0.49099	0.28475	0.3569
03/01/2023 03:55	0	0.51509	0.65241	0.5	0.28475	0.34175
03/01/2023 03:56	0	0.51308	0.64706	0.5045	0.28475	0.32492
03/01/2023 03:57	0	0.51107	0.64439	0.5045	0.28814	0.3165
03/01/2023 03:58	0	0.50905	0.63904	0.50901	0.28814	0.3064
03/01/2023 03:59	0	0.50704	0.63369	0.51351	0.28814	0.30135
03/01/2023 04:00	0	0.50503	0.62834	0.51802	0.29153	0.29798
03/01/2023 04:01	0	0.50302	0.62567	0.51802	0.29153	0.29461
03/01/2023 04:02	0	0.49899	0.62032	0.51802	0.29153	0.29293
03/01/2023 04:03	0	0.49698	0.61497	0.52252	0.29153	0.29461
03/01/2023 04:04	0	0.49497	0.6123	0.52252	0.29492	0.29798
03/01/2023 04:05	0	0.49296	0.60695	0.52703	0.29492	0.3064
03/01/2023 04:06	0	0.49095	0.60428	0.52703	0.29492	0.31145
03/01/2023 04:07	0	0.48692	0.59893	0.52703	0.29492	0.32155
03/01/2023 04:08	0	0.48491	0.59626	0.52703	0.29492	0.32828
03/01/2023 04:09	0	0.48089	0.59091	0.52703	0.29492	0.33838
03/01/2023 04:10	0	0.48089	0.58824	0.53153	0.29831	0.34175
03/01/2023 04:11	0	0.47686	0.58289	0.53153	0.29831	0.34848
03/01/2023 04:12	0	0.47485	0.58021	0.53153	0.29831	0.35185
03/01/2023 04:13	0	0.47082	0.57487	0.53153	0.29831	0.3569
03/01/2023 04:14	0	0.46881	0.57219	0.53153	0.29831	0.35859
03/01/2023 04:15	0	0.4668	0.56952	0.53153	0.29831	0.36195
03/01/2023 04:16	0	0.46479	0.56684	0.53153	0.29831	0.36195
03/01/2023 04:17	0	0.46076	0.56417	0.52703	0.29831	0.36364
03/01/2023 04:18	0	0.45875	0.5615	0.52703	0.29831	0.36195
03/01/2023 04:19	0	0.45473	0.55882	0.52252	0.30169	0.36195
03/01/2023 04:20	0	0.45272	0.55348	0.52703	0.29831	0.36027
03/01/2023 04:21	0	0.4507	0.5508	0.52703	0.29831	0.36027
03/01/2023 04:22	0	0.44869	0.54813	0.52703	0.29831	0.35859
03/01/2023 04:23	0	0.44668	0.54545	0.52703	0.30169	0.3569
03/01/2023 04:24	0	0.44266	0.54278	0.52252	0.30169	0.35522
03/01/2023 04:25	0	0.44064	0.54011	0.52252	0.30169	0.28283
03/01/2023 04:26	0	0.43863	0.53743	0.52252	0.30169	0.19865
03/01/2023 04:27	0	0.43662	0.53476	0.52252	0.30169	0.22054
03/01/2023 04:28	0	0.43461	0.52941	0.52703	0.30169	0.24242
03/01/2023 04:29	0	0.4326	0.52941	0.52252	0.30169	0.25253
03/01/2023 04:30	0	0.43058	0.52406	0.52703	0.30169	0.26263
03/01/2023 04:31	0	0.42857	0.52139	0.52703	0.30169	0.26768
03/01/2023 04:32	0	0.42455	0.51872	0.52252	0.30169	0.27273
03/01/2023 04:33	0	0.42455	0.51604	0.52703	0.30169	0.27441
03/01/2023 04:34	0	0.42052	0.51337	0.52252	0.30169	0.27778
03/01/2023 04:35	0	0.42052	0.5107	0.52703	0.30169	0.28114
03/01/2023 04:36	0	0.41851	0.50802	0.52703	0.30169	0.28283
03/01/2023 04:37	0	0.4165	0.50535	0.52703	0.30169	0.28451
03/01/2023 04:38	0	0.41449	0.50267	0.52703	0.30169	0.2862
03/01/2023 04:39	0	0.41247	0.5	0.52703	0.30169	0.28788
03/01/2023 04:40	0	0.41046	0.49733	0.52703	0.30169	0.28788
03/01/2023 04:41	0	0.40845	0.49465	0.52703	0.30169	0.28788
03/01/2023 04:42	0	0.40644	0.49198	0.52703	0.30169	0.2862
03/01/2023 04:43	0	0.40443	0.48663	0.53153	0.30169	0.2862
03/01/2023 04:44	0	0.40443	0.48663	0.53153	0.30169	0.28451
03/01/2023 04:45	0	0.40241	0.48128	0.53604	0.30169	0.28451
03/01/2023 04:46	0	0.4004	0.48128	0.53153	0.30169	0.28283
03/01/2023 04:47	0	0.39839	0.47594	0.53604	0.30169	0.28283
03/01/2023 04:48	0	0.39638	0.47594	0.53153	0.30169	0.28283
03/01/2023 04:49	0	0.3662	0.51337	0.4009	0.30169	0.28114
03/01/2023 04:50	0	0.38028	0.52941	0.40541	0.30169	0.28114
03/01/2023 04:51	0	0.32797	0.41979	0.47297	0.30508	0.28114
03/01/2023 04:52	0.41	0.26157	0.35561	0.43243	0.30169	0.33165
03/01/2023 04:53	0.55	0.31992	0.35027	0.57207	0.29831	0.65152
03/01/2023 04:54	0.69	0.34608	0.35027	0.63063	0.29492	0.68519
03/01/2023 04:55	0.8	0.35614	0.35027	0.65315	0.29492	0.69697

03/01/2023 04:56	0.8	0.36016	0.35561	0.65315	0.29153	0.70034
03/01/2023 04:57	0.8	0.36217	0.36096	0.64865	0.29153	0.7037
03/01/2023 04:58	1	0.38833	0.36898	0.69369	0.29153	0.71886
03/01/2023 04:59	1	0.39235	0.37701	0.68919	0.29153	0.72727
03/01/2023 05:00	1	0.39839	0.38503	0.68919	0.28814	0.73064
03/01/2023 05:01	1	0.4004	0.39305	0.68018	0.28814	0.73232
03/01/2023 05:02	1	0.40845	0.40374	0.68018	0.28475	0.74074
03/01/2023 05:03	1	0.4165	0.40909	0.68919	0.28475	0.74411
03/01/2023 05:04	1	0.45875	0.46524	0.68919	0.28136	0.76936
03/01/2023 05:05	1	0.48491	0.50267	0.68468	0.28136	0.78788
03/01/2023 05:06	1	0.52515	0.55615	0.68468	0.28136	0.82323
03/01/2023 05:07	0.91	0.54728	0.59091	0.67568	0.28136	0.8468
03/01/2023 05:08	0.83	0.57344	0.64171	0.64865	0.27797	0.867
03/01/2023 05:09	0.62	0.57948	0.66578	0.62162	0.27797	0.87542
03/01/2023 05:10	0.25	0.52515	0.69786	0.44595	0.27797	0.87205
03/01/2023 05:11	0	0.51911	0.69786	0.43243	0.27458	0.76094
03/01/2023 05:12	0	0.5171	0.68449	0.45045	0.27797	0.50505
03/01/2023 05:13	0	0.51509	0.68182	0.45045	0.27797	0.43603
03/01/2023 05:14	0	0.51509	0.67112	0.46847	0.27797	0.40404
03/01/2023 05:15	0	0.49899	0.66578	0.44144	0.27797	0.38047
03/01/2023 05:16	0	0.49698	0.6631	0.44144	0.27797	0.36027
03/01/2023 05:17	0	0.48692	0.61497	0.5	0.27797	0.35354
03/01/2023 05:18	0	0.43662	0.5508	0.4955	0.27797	0.34343
03/01/2023 05:19	0	0.34406	0.45722	0.44595	0.28136	0.33838
03/01/2023 05:20	0.55	0.38028	0.44118	0.55405	0.28136	0.64646
03/01/2023 05:21	0.55	0.39235	0.4385	0.58559	0.27797	0.7138
03/01/2023 05:22	0.8	0.41449	0.43583	0.63964	0.27797	0.74242
03/01/2023 05:23	0.8	0.42052	0.43583	0.65315	0.27458	0.75253
03/01/2023 05:24	0.8	0.42254	0.4385	0.65315	0.27797	0.75421
03/01/2023 05:25	0.8	0.42455	0.44385	0.64865	0.27797	0.75589
03/01/2023 05:26	1	0.4507	0.45187	0.69369	0.27797	0.77273
03/01/2023 05:27	1	0.45473	0.45989	0.68919	0.27797	0.77609
03/01/2023 05:28	1	0.45875	0.46791	0.68468	0.27458	0.77778
03/01/2023 05:29	1	0.46076	0.47594	0.67568	0.27119	0.78114
03/01/2023 05:30	0.68	0.4507	0.48396	0.63964	0.27119	0.78283
03/01/2023 05:31	0.28	0.41247	0.4893	0.54505	0.27458	0.75926
03/01/2023 05:32	0.21	0.37022	0.5	0.43243	0.27458	0.22391
03/01/2023 05:33	0.55	0.29376	0.5	0.26126	0.27458	0.133
03/01/2023 05:34	0	0.27364	0.49733	0.22072	0.27458	0.40404
03/01/2023 05:35	0	0.36419	0.49198	0.43243	0.27458	0.5303
03/01/2023 05:36	0.55	0.40241	0.46791	0.55856	0.27797	0.67677
03/01/2023 05:37	0.55	0.39839	0.45187	0.57658	0.27797	0.72896
03/01/2023 05:38	0.77	0.42052	0.44652	0.63514	0.27458	0.75084
03/01/2023 05:39	0.8	0.43058	0.4492	0.65315	0.27458	0.76094
03/01/2023 05:40	0.8	0.4326	0.45722	0.64414	0.27458	0.76431
03/01/2023 05:41	0.8	0.43662	0.46257	0.64414	0.27458	0.76599
03/01/2023 05:42	1	0.46278	0.47326	0.68468	0.27458	0.78114
03/01/2023 05:43	1	0.4668	0.47861	0.68468	0.27797	0.78788
03/01/2023 05:44	1	0.47284	0.48663	0.68468	0.27458	0.79293
03/01/2023 05:45	1	0.47686	0.49465	0.68018	0.27458	0.79461
03/01/2023 05:46	1	0.4829	0.50267	0.68018	0.27458	0.79966
03/01/2023 05:47	1	0.48893	0.5107	0.68018	0.27119	0.80303
03/01/2023 05:48	0.99	0.49497	0.51872	0.68018	0.27119	0.80808
03/01/2023 05:49	0.98	0.49698	0.52406	0.67568	0.2678	0.81313
03/01/2023 05:50	0.98	0.50302	0.53209	0.67568	0.26441	0.8165
03/01/2023 05:51	0.97	0.50704	0.53743	0.67568	0.26102	0.81987
03/01/2023 05:52	0.97	0.51308	0.54545	0.67568	0.25763	0.82492
03/01/2023 05:53	0.96	0.51509	0.5508	0.67117	0.25763	0.82828
03/01/2023 05:54	0.94	0.51911	0.55615	0.67117	0.25424	0.83165
03/01/2023 05:55	0.92	0.52113	0.5615	0.66667	0.25085	0.83502
03/01/2023 05:56	0.9	0.52515	0.56952	0.66216	0.25085	0.83838
03/01/2023 05:57	0.89	0.52515	0.57487	0.65315	0.24746	0.83838
03/01/2023 05:58	0.85	0.52918	0.58021	0.65315	0.24068	0.84175
03/01/2023 05:59	0.84	0.52918	0.58556	0.64414	0.23729	0.84175

03/01/2023 06:00	0.79	0.53119	0.59358	0.63514	0.23729	0.84343
03/01/2023 06:01	0.78	0.53119	0.59626	0.63063	0.23729	0.84175
03/01/2023 06:02	0.74	0.52918	0.6016	0.61712	0.23729	0.84175
03/01/2023 06:03	0.71	0.52918	0.60695	0.60811	0.24068	0.84175
03/01/2023 06:04	0.63	0.55533	0.64171	0.60811	0.24746	0.85354
03/01/2023 06:05	0.23	0.50704	0.6738	0.44595	0.25085	0.85522
03/01/2023 06:06	0	0.50101	0.67647	0.42793	0.25424	0.75758
03/01/2023 06:07	0	0.50101	0.66578	0.44595	0.25424	0.50337
03/01/2023 06:08	0	0.49899	0.66043	0.45045	0.25424	0.42761
03/01/2023 06:09	0	0.50302	0.65241	0.47297	0.25763	0.40236
03/01/2023 06:10	0	0.50302	0.64706	0.48198	0.25763	0.36532
03/01/2023 06:11	0	0.50302	0.63904	0.4955	0.25763	0.33838
03/01/2023 06:12	0	0.50503	0.63369	0.50901	0.25763	0.32492
03/01/2023 06:13	0	0.50302	0.62834	0.51351	0.25763	0.31145
03/01/2023 06:14	0	0.50101	0.62567	0.51351	0.26102	0.30135
03/01/2023 06:15	0	0.49899	0.62032	0.51802	0.26102	0.29125
03/01/2023 06:16	0	0.49698	0.61765	0.51802	0.26441	0.2862
03/01/2023 06:17	0	0.49497	0.6123	0.52252	0.26441	0.28114
03/01/2023 06:18	0	0.49296	0.60963	0.52252	0.2678	0.27778
03/01/2023 06:19	0	0.48893	0.60428	0.52252	0.2678	0.27609
03/01/2023 06:20	0	0.48089	0.60695	0.5	0.2678	0.27441
03/01/2023 06:21	0	0.47887	0.59893	0.50901	0.27119	0.27273
03/01/2023 06:22	0	0.47686	0.59626	0.50901	0.27119	0.27273
03/01/2023 06:23	0	0.47485	0.59091	0.51351	0.27458	0.27441
03/01/2023 06:24	0	0.47284	0.58824	0.51351	0.27458	0.27609
03/01/2023 06:25	0	0.47082	0.58289	0.51802	0.27458	0.27946
03/01/2023 06:26	0	0.4668	0.57754	0.51802	0.27458	0.28114
03/01/2023 06:27	0	0.46479	0.57487	0.51802	0.27797	0.28451
03/01/2023 06:28	0	0.46278	0.56952	0.52252	0.27797	0.28788
03/01/2023 06:29	0	0.46076	0.56684	0.52252	0.27797	0.28956
03/01/2023 06:30	0	0.45875	0.56417	0.52252	0.27797	0.29125
03/01/2023 06:31	0	0.46479	0.5508	0.55856	0.27797	0.29293
03/01/2023 06:32	0	0.46278	0.55348	0.54955	0.27797	0.29461
03/01/2023 06:33	0	0.46278	0.55348	0.54955	0.28136	0.2963
03/01/2023 06:34	0.22	0.22736	0.30749	0.43694	0.27797	0.41246
03/01/2023 06:35	0.55	0.29779	0.30749	0.59459	0.27119	0.61616
03/01/2023 06:36	0.61	0.30382	0.30481	0.61261	0.26102	0.64646
03/01/2023 06:37	0.8	0.32797	0.31283	0.65315	0.25424	0.67003
03/01/2023 06:38	0.8	0.33803	0.32888	0.64865	0.24407	0.6835
03/01/2023 06:39	0.8	0.34608	0.33957	0.64865	0.24068	0.68855
03/01/2023 06:40	0.96	0.37626	0.35561	0.68919	0.24068	0.7037
03/01/2023 06:41	1	0.38632	0.36898	0.68919	0.24068	0.71717
03/01/2023 06:42	1	0.39638	0.38503	0.68468	0.24068	0.72727
03/01/2023 06:43	1	0.40241	0.39572	0.68018	0.24407	0.72896
03/01/2023 06:44	1	0.4165	0.41711	0.67568	0.24407	0.73906
03/01/2023 06:45	0.98	0.42254	0.42781	0.67117	0.24407	0.75084
03/01/2023 06:46	0.79	0.39437	0.41176	0.63514	0.24068	0.73064
03/01/2023 06:47	0.7	0.4165	0.46791	0.59009	0.23729	0.73401
03/01/2023 06:48	0.7	0.45674	0.52139	0.59009	0.23729	0.76094
03/01/2023 06:49	0.7	0.48692	0.55348	0.6036	0.23729	0.79798
03/01/2023 06:50	0.7	0.49497	0.56417	0.6036	0.23729	0.80808
03/01/2023 06:51	0.7	0.5171	0.59893	0.59459	0.23729	0.8266
03/01/2023 06:52	0.7	0.53119	0.61765	0.59459	0.2339	0.84007
03/01/2023 06:53	0.7	0.5493	0.64171	0.59459	0.23729	0.85354
03/01/2023 06:54	0.7	0.55533	0.64973	0.59459	0.23729	0.85522
03/01/2023 06:55	0.7	0.56137	0.65775	0.59459	0.23729	0.86027
03/01/2023 06:56	0.7	0.56338	0.6631	0.59009	0.23729	0.86195
03/01/2023 06:57	0.7	0.56539	0.66845	0.58559	0.24068	0.867
03/01/2023 06:58	0.7	0.56942	0.67112	0.59009	0.24407	0.87037
03/01/2023 06:59	0.7	0.57545	0.67914	0.59009	0.24746	0.87374
03/01/2023 07:00	0.7	0.57948	0.68182	0.59459	0.24746	0.8771
03/01/2023 07:01	0.7	0.58551	0.68984	0.59459	0.24746	0.88215
03/01/2023 07:02	0.7	0.58954	0.69519	0.59459	0.24407	0.88552
03/01/2023 07:03	0.7	0.59759	0.70588	0.59459	0.24068	0.89057

03/01/2023 07:04	0.7	0.60161	0.7139	0.59009	0.24407	0.89562
03/01/2023 07:05	0.7	0.61167	0.7246	0.59459	0.24746	0.90236
03/01/2023 07:06	0.7	0.61569	0.73262	0.59009	0.25085	0.90741
03/01/2023 07:07	0.7	0.62173	0.74332	0.58559	0.25424	0.91246
03/01/2023 07:08	0.7	0.62575	0.74866	0.58559	0.25424	0.91751
03/01/2023 07:09	0.8	0.39235	0.40107	0.64865	0.25763	0.86869
03/01/2023 07:10	0.8	0.39034	0.39305	0.65766	0.25763	0.73232
03/01/2023 07:11	0.8	0.39437	0.40374	0.64865	0.26102	0.7037
03/01/2023 07:12	0.91	0.40443	0.41444	0.65315	0.26102	0.72559
03/01/2023 07:13	1	0.43058	0.43316	0.68018	0.26102	0.75253
03/01/2023 07:14	1	0.43863	0.44385	0.68018	0.26102	0.76094
03/01/2023 07:15	1	0.44668	0.46257	0.66667	0.26102	0.77104
03/01/2023 07:16	0.45	0.42052	0.47861	0.58108	0.26102	0.76094
03/01/2023 07:17	0	0.3662	0.49465	0.43243	0.26102	0.69024
03/01/2023 07:18	0.42	0.36217	0.50267	0.40991	0.26102	0.17003
03/01/2023 07:19	0.55	0.30382	0.50802	0.27027	0.26441	0.11111
03/01/2023 07:20	0.34	0.28169	0.50267	0.22973	0.26441	0.28956
03/01/2023 07:21	0	0.35614	0.4893	0.41892	0.2678	0.44444
03/01/2023 07:22	0.55	0.37223	0.47326	0.48198	0.27119	0.56397
03/01/2023 07:23	0.55	0.39638	0.45722	0.56306	0.27119	0.7138
03/01/2023 07:24	0.71	0.41247	0.44652	0.61712	0.27458	0.74242
03/01/2023 07:25	0.8	0.4326	0.45187	0.65315	0.27797	0.75926
03/01/2023 07:26	0.8	0.43662	0.46257	0.64414	0.27797	0.76599
03/01/2023 07:27	0.8	0.44064	0.46791	0.64414	0.28136	0.77104
03/01/2023 07:28	0.99	0.46881	0.48663	0.67568	0.28136	0.78114
03/01/2023 07:29	1	0.4829	0.5	0.68468	0.28136	0.79966
03/01/2023 07:30	1	0.49095	0.51337	0.68018	0.28136	0.80808
03/01/2023 07:31	1	0.49698	0.52139	0.68018	0.28136	0.81145
03/01/2023 07:32	0.96	0.50704	0.53743	0.67568	0.28475	0.82323
03/01/2023 07:33	0.94	0.5171	0.55615	0.66667	0.28475	0.8266
03/01/2023 07:34	0.89	0.52314	0.56684	0.66216	0.28475	0.83502
03/01/2023 07:35	0.87	0.53119	0.58289	0.65315	0.28475	0.84007
03/01/2023 07:36	0.79	0.53521	0.59358	0.64414	0.28814	0.84512
03/01/2023 07:37	0.77	0.53924	0.6123	0.62162	0.28814	0.84848
03/01/2023 07:38	0.63	0.54125	0.62032	0.61261	0.28814	0.85017
03/01/2023 07:39	0.24	0.51308	0.63102	0.53153	0.28814	0.84175
03/01/2023 07:40	0	0.47686	0.64171	0.43243	0.29153	0.75758
03/01/2023 07:41	0	0.47485	0.63636	0.43694	0.29153	0.5
03/01/2023 07:42	0	0.47284	0.63369	0.43694	0.29153	0.42929
03/01/2023 07:43	0	0.47284	0.63369	0.43694	0.29153	0.41751
03/01/2023 07:44	0	0.47082	0.62567	0.44595	0.29153	0.39731
03/01/2023 07:45	0	0.46881	0.61765	0.45495	0.29153	0.38552
03/01/2023 07:46	0	0.4668	0.6123	0.45946	0.29153	0.37205
03/01/2023 07:47	0	0.4668	0.60428	0.47297	0.29153	0.367
03/01/2023 07:48	0	0.46479	0.6016	0.47297	0.29492	0.367
03/01/2023 07:49	0	0.46278	0.59626	0.47748	0.29492	0.37374
03/01/2023 07:50	0	0.46076	0.59358	0.47748	0.29492	0.38215
03/01/2023 07:51	0	0.45674	0.59091	0.47297	0.29831	0.39057
03/01/2023 07:52	0	0.45272	0.58824	0.46847	0.29831	0.39394
03/01/2023 07:53	0	0.44869	0.58556	0.46396	0.30169	0.39731
03/01/2023 07:54	0	0.44467	0.58289	0.45946	0.30169	0.39731
03/01/2023 07:55	0	0.44064	0.58289	0.45045	0.30169	0.39562
03/01/2023 07:56	0	0.43662	0.57754	0.45045	0.30508	0.39394
03/01/2023 07:57	0	0.4326	0.57754	0.44144	0.30508	0.39057
03/01/2023 07:58	0	0.43058	0.57487	0.44144	0.30508	0.38721
03/01/2023 07:59	0	0.42656	0.57219	0.43694	0.30508	0.38215
03/01/2023 08:00	0	0.42455	0.57219	0.43243	0.30847	0.38047
03/01/2023 08:01	0	0.42254	0.56952	0.43243	0.30847	0.37542
03/01/2023 08:02	0	0.42052	0.56684	0.43243	0.30847	0.37205
03/01/2023 08:03	0	0.41851	0.56417	0.43243	0.30847	0.367
03/01/2023 08:04	0	0.4165	0.5615	0.43243	0.30847	0.36364
03/01/2023 08:05	0	0.4165	0.55882	0.43694	0.30847	0.36027
03/01/2023 08:06	0	0.41449	0.55882	0.43243	0.31186	0.3569
03/01/2023 08:07	0	0.41247	0.55348	0.43694	0.31186	0.35185

03/01/2023 08:08	0	0.41247	0.5508	0.44144	0.31186	0.34848
03/01/2023 08:09	0	0.40845	0.54813	0.43694	0.31186	0.34343
03/01/2023 08:10	0	0.40845	0.54545	0.44144	0.31525	0.34007
03/01/2023 08:11	0	0.40644	0.54278	0.44144	0.31525	0.3367
03/01/2023 08:12	0	0.40644	0.54011	0.44595	0.31525	0.33165
03/01/2023 08:13	0	0.40443	0.53743	0.44595	0.31525	0.32828
03/01/2023 08:14	0	0.40241	0.53476	0.44595	0.31525	0.32492
03/01/2023 08:15	0	0.4004	0.53209	0.44595	0.31864	0.32323
03/01/2023 08:16	0	0.39839	0.52941	0.44595	0.31864	0.32155
03/01/2023 08:17	0	0.39839	0.52674	0.45045	0.31864	0.32155
03/01/2023 08:18	0	0.39638	0.52406	0.45045	0.32203	0.31987
03/01/2023 08:19	0	0.39437	0.52139	0.45045	0.32203	0.31818
03/01/2023 08:20	0	0.39235	0.51872	0.45045	0.32203	0.3165
03/01/2023 08:21	0	0.39034	0.51604	0.45045	0.32203	0.31481
03/01/2023 08:22	0	0.38833	0.51337	0.45045	0.32203	0.31145
03/01/2023 08:23	0	0.38833	0.51337	0.45045	0.32203	0.31145
03/01/2023 08:24	0	0.38431	0.50802	0.45045	0.32542	0.30976
03/01/2023 08:25	0.3	0.33602	0.45455	0.43243	0.32203	0.3165
03/01/2023 08:26	0.55	0.39034	0.4492	0.56306	0.32203	0.69529
03/01/2023 08:27	0.45	0.39034	0.44652	0.56757	0.31864	0.72222
03/01/2023 08:28	0.4	0.38028	0.4492	0.54054	0.31525	0.71717
03/01/2023 08:29	0.41	0.38833	0.45187	0.55405	0.31525	0.72391
03/01/2023 08:30	0.45	0.39839	0.45989	0.56306	0.31186	0.73232
03/01/2023 08:31	0.48	0.40443	0.46524	0.56757	0.31186	0.73737
03/01/2023 08:32	0.51	0.41247	0.47059	0.57658	0.31525	0.74579
03/01/2023 08:33	0.54	0.41851	0.47594	0.58108	0.31525	0.75084
03/01/2023 08:34	0.55	0.42656	0.48663	0.58108	0.31525	0.75421
03/01/2023 08:35	0.57	0.4326	0.4893	0.59009	0.31525	0.75758
03/01/2023 08:36	0.57	0.44064	0.5	0.59009	0.31525	0.75926
03/01/2023 08:37	0.57	0.44467	0.50802	0.58559	0.31525	0.76431
03/01/2023 08:38	0.57	0.44869	0.51604	0.58108	0.31525	0.76768
03/01/2023 08:39	0.56	0.45272	0.52139	0.58108	0.31525	0.77441
03/01/2023 08:40	0.56	0.45875	0.53209	0.57658	0.31864	0.77946
03/01/2023 08:41	0.53	0.46278	0.53743	0.57658	0.31864	0.78114
03/01/2023 08:42	0.53	0.46479	0.54278	0.57207	0.31864	0.78283
03/01/2023 08:43	0.5	0.46881	0.5508	0.56757	0.31864	0.7862
03/01/2023 08:44	0.48	0.47082	0.55615	0.56306	0.32203	0.78956
03/01/2023 08:45	0.51	0.38833	0.42781	0.59459	0.32203	0.78283
03/01/2023 08:46	0.55	0.38229	0.42781	0.58108	0.32542	0.74411
03/01/2023 08:47	0.7	0.44467	0.50535	0.59009	0.32881	0.72896
03/01/2023 08:48	0.7	0.50503	0.58021	0.5991	0.32881	0.78956
03/01/2023 08:49	0.7	0.55936	0.64973	0.6036	0.33559	0.85354
03/01/2023 08:50	0.7	0.57344	0.66578	0.60811	0.33559	0.87205
03/01/2023 08:51	0.7	0.58551	0.67914	0.61261	0.34237	0.88552
03/01/2023 08:52	0.7	0.58954	0.68449	0.61261	0.34576	0.89057
03/01/2023 08:53	0.7	0.59356	0.68984	0.61261	0.34915	0.89394
03/01/2023 08:54	0.7	0.59557	0.69251	0.61261	0.35254	0.88889
03/01/2023 08:55	0.7	0.5996	0.69786	0.61261	0.35593	0.89394
03/01/2023 08:56	0.7	0.60362	0.70321	0.61261	0.36271	0.89899
03/01/2023 08:57	0.7	0.60966	0.71658	0.6036	0.3661	0.90741
03/01/2023 08:58	0.7	0.61569	0.7246	0.6036	0.3661	0.91246
03/01/2023 08:59	0.7	0.62374	0.73797	0.5991	0.36949	0.91919
03/01/2023 09:00	0.7	0.62777	0.74332	0.5991	0.36949	0.92256
03/01/2023 09:01	0.8	0.35211	0.3369	0.66667	0.36949	0.83502
03/01/2023 09:02	0.8	0.34608	0.32086	0.68018	0.36949	0.6936
03/01/2023 09:03	0.8	0.34004	0.31818	0.67117	0.37288	0.67003
03/01/2023 09:04	0.93	0.34608	0.32353	0.67568	0.37288	0.6835
03/01/2023 09:05	1	0.3662	0.33422	0.7027	0.37627	0.70034
03/01/2023 09:06	1	0.37223	0.33957	0.70721	0.37627	0.70539
03/01/2023 09:07	0.65	0.32797	0.34759	0.59459	0.37966	0.69529
03/01/2023 09:08	0	0.15895	0.35027	0.21171	0.37966	0.62458
03/01/2023 09:09	0.21	0.23541	0.35829	0.36937	0.37966	0.15657
03/01/2023 09:10	0.55	0.14688	0.36096	0.16667	0.38305	0.26936
03/01/2023 09:11	0	0.26761	0.36631	0.42793	0.38983	0.56061

```
03/01/2023 09:12      0.43      0.27565      0.35829      0.45946      0.38983      0.55051
03/01/2023 09:13      0.55       0.3159      0.34225      0.57658      0.39322      0.67172
03/01/2023 09:14      0.63      0.32394      0.33957       0.5991      0.38983      0.67172
03/01/2023 09:15       0.8      0.36016      0.34759      0.66667      0.38305      0.69865
03/01/2023 09:16       0.8      0.36821      0.35829      0.66667      0.37966      0.70707
03/01/2023 09:17       0.8      0.38028      0.37433      0.66667      0.37627      0.71717
03/01/2023 09:18         1      0.39638       0.3877      0.68018      0.37627      0.72559
03/01/2023 09:19         1       0.4165       0.3984      0.70721      0.37966      0.74747
03/01/2023 09:20      0.98      0.42857      0.41979       0.6982      0.38305      0.75589
03/01/2023 09:21      0.99      0.43461      0.43048      0.69369      0.38644      0.75926
03/01/2023 09:22      0.97      0.44869      0.45187      0.68919      0.38983      0.77273
03/01/2023 09:23      0.97      0.45875      0.46791      0.68468      0.39322      0.77946
03/01/2023 09:24      0.95      0.47485       0.4893      0.68468      0.39661      0.78956
03/01/2023 09:25      0.93       0.4829      0.50267      0.68018      0.39661      0.79798
03/01/2023 09:26      0.87      0.49296      0.52139      0.67117      0.40339       0.8064
03/01/2023 09:27      0.84      0.49899      0.53476      0.66216      0.40678      0.81313
03/01/2023 09:28      0.79      0.50905       0.5508      0.65766      0.41017      0.82323
03/01/2023 09:29      0.75      0.51308       0.5615      0.64865      0.40678       0.8266
03/01/2023 09:30      0.67      0.51509      0.57487      0.63063      0.40678      0.83165
03/01/2023 09:31      0.63       0.5171      0.58824      0.61261      0.41017      0.83333
03/01/2023 09:32       0.4      0.48893      0.60428      0.52252      0.41356       0.8266
03/01/2023 09:33         0      0.45473       0.6123      0.43243      0.41695      0.79293
03/01/2023 09:34         0      0.45674       0.6123      0.43694      0.41356      0.49832
03/01/2023 09:35         0      0.45674      0.60963      0.44144      0.41695      0.44949
03/01/2023 09:36         0      0.45674      0.60428      0.45045      0.41695      0.41919
03/01/2023 09:37         0      0.45473       0.6016      0.45045      0.41695      0.40404
03/01/2023 09:38 ...
```

STEP III: Simulation and System Identification:

Preprocessing and setting internal parameters

```
%% Params
sampleTime = 0.05; % Ts
filter_wex_test = 0 ; % Set the new filter for validation part to 1 if you want to
have filtered data

opt_method = 1; % See below
%change it to <2> for Gauss-Newton least squares search
%change it to <3> for Levenberg-Marquardt least squares search
%change it to <4> for Steepest descent least squares search
%change it to <1> for the default process if you see errors

%nx=3;  % number of the state variables
%nx=4;  % number of the state variables
%nx=5;  % number of the state variables
nx=2;  % number of the state variables
```

Calling Simulation and System Identification for one single pair(February and March):

```
%%  Telemetry data
data4id.Comp_freq= Table_202302.Comp_freq;
data4id.Tw_wex_out= Table_202302.Tw_wex_out;
```

```
data4id.Tw_wex_in= Table_202302.Tw_wex_in;
data4id.Tw_wex_delta= Table_202302.Tw_wex_delta;
data4id.Air_Temp= Table_202302.Air_Temp;
data4id.TR_wex_out= Table_202302.TR_wex_out;

%Data for Validation
data4vl.Comp_freq2= Table_202303.Comp_freq;
data4vl.Tw_wex_out2=Table_202303.Tw_wex_out;
data4vl.Tw_wex_in2= Table_202303.Tw_wex_in;
data4vl.Tw_wex_delta2=Table_202303.Tw_wex_delta;
data4vl.Air_Temp2= Table_202303.Air_Temp;
data4vl.TR_wex_out2= Table_202303.TR_wex_out;

%Calling the comparison Function:
output_sys_m = sysid(sampleTime, filter_wex_test, opt_method, nx, data4id,
data4vl,1,1);
```
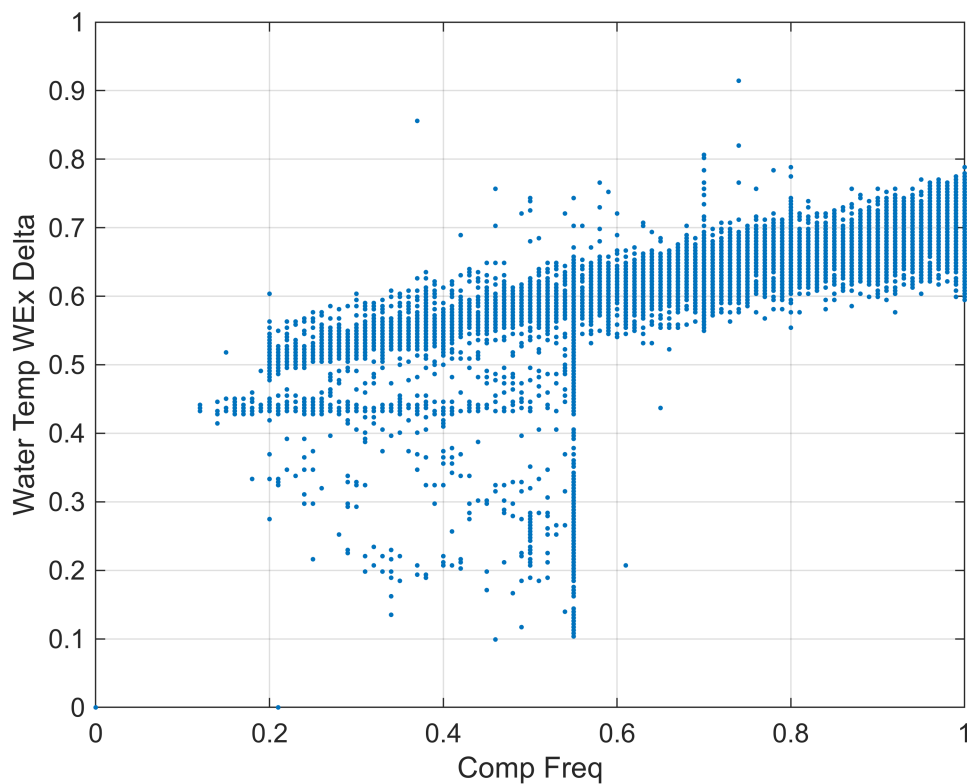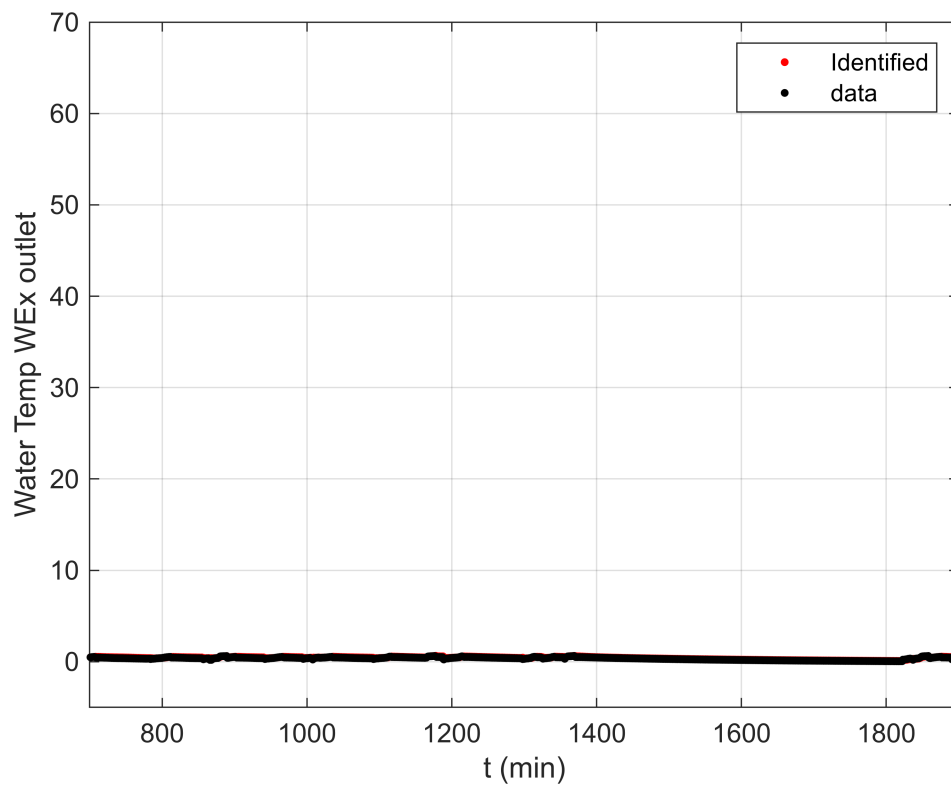
```
The obtained system is Controllable
The obtained system is Observable
Final Prediction Error is
   9.1679e-04

Mean squared error is
   9.1634e-04

Curve Fitting Percentage is
   77.5567
```

We can specify the related SI(System Identifier) and save it for further analysis.

```
mpf_Table_202303 = mpf;
save('mpf.mat', 'mpf');
mpf.Notes= 'table_202303';
```