

```
>> % Directory containing the files
dataDir = 'C:\Users\ASUS\Documents\Computer Science @Plymuni . NSBM\3rd Year\AI and ML\Coursework\New folder';

% Display directory path
disp(['Checking directory: ', dataDir]);

% Check directory content
disp('Checking directory content...');
dirContent = dir(dataDir);
if isempty(dirContent)
    error('Directory is empty or path is incorrect.');
```

```
else
    disp('Files in the directory:');
    disp({dirContent.name});
end

% Filter for .mat files
files = dir(fullfile(dataDir, '*.mat'));
if isempty(files)
    error('No .mat files found in the directory. Please check the file extensions or path.');
```

```
else
    disp(['Number of .mat files found: ', num2str(length(files))]);
    disp({files.name});
end

% Initialize variables for statistics
stats_mean = {};
stats_variance = {};
stats_std = {};
user_ids = {};
feature_counts = [];

% Loop through each file
for i = 1:length(files)
    filePath = fullfile(files(i).folder, files(i).name);
    disp(['Processing file: ', files(i).name]);

    % Load the data
    try
        data = load(filePath);
    catch ME
        disp(['Error loading file: ', files(i).name, ' - ', ME.message]);
        continue;
    end

    % Get field names in the .mat file
    featureKey = fieldnames(data);
```

```
if isempty(featureKey)
    disp(['Skipping file: ', files(i).name, ' - No fields found in the data.']);
    continue;
end
disp(['Fields in the file: ', files(i).name]);
disp(featureKey);

% Access the first field (assuming it contains features)
try
    features = data.(featureKey{1}); % Adjust if necessary
catch
    disp(['Skipping file: ', files(i).name, ' - Unable to access the first
field.']);
    continue;
end

% Validate features
if isempty(features) || ~isnumeric(features)
    disp(['Skipping file: ', files(i).name, ' - Data is empty or not numeric.']);
    continue;
end

% Extract user ID
[~, fileName, ~] = fileparts(files(i).name);
user_id = fileName(1:3); % e.g., 'U01'
user_ids = [user_ids; user_id];
feature_counts = [feature_counts; size(features, 2)];

% Calculate statistics
stats_mean{end+1} = mean(features, 1); % Store as cell array
stats_variance{end+1} = var(features, 0, 1);
stats_std{end+1} = std(features, 0, 1);
end

% Group statistics by feature count
unique_feature_counts = unique(feature_counts);
for u = 1:length(unique_feature_counts)
    count = unique_feature_counts(u);
    disp(['Statistics for files with ', num2str(count), ' features:']);

    % Filter stats for this feature group
    group_idx = (feature_counts == count);

    % Concatenate statistics for this group
    group_mean = vertcat(stats_mean{group_idx});
    group_variance = vertcat(stats_variance{group_idx});
    group_std = vertcat(stats_std{group_idx});

    % Display as tables
```

```

meanTable = array2table(group_mean, ...
    'VariableNames', strcat('Feature_', string(1:count)));
varianceTable = array2table(group_variance, ...
    'VariableNames', strcat('Feature_', string(1:count)));
stdTable = array2table(group_std, ...
    'VariableNames', strcat('Feature_', string(1:count)));

disp('Mean Statistics:');
disp(meanTable);
disp('Variance Statistics:');
disp(varianceTable);
disp('Standard Deviation Statistics:');
disp(stdTable);
end
Checking directory: C:\Users\ASUS\Documents\Computer Science @Plymuni . NSBM\3rd Year\AI and ML\Coursework\New folder
Checking directory content...
Files in the directory:
    Columns 1 through 5

    {'.'}      {'..' }      {'U01_Acc_FreqD_F...'}      {'U01_Acc_FreqD_M...'}
{'U01_Acc_TimeD_F...'}

    Columns 6 through 9

    {'U01_Acc_TimeD_F...'}      {'U01_Acc_TimeD_F...'}      {'U01_Acc_TimeD_M...'}
{'U02_Acc_FreqD_F...'}

    Columns 10 through 13

    {'U02_Acc_FreqD_M...'}      {'U02_Acc_TimeD_F...'}      {'U02_Acc_TimeD_F...'}
{'U02_Acc_TimeD_F...'}

    Columns 14 through 17

    {'U02_Acc_TimeD_M...'}      {'U03_Acc_FreqD_F...'}      {'U03_Acc_FreqD_M...'}
{'U03_Acc_TimeD_F...'}

    Columns 18 through 21

    {'U03_Acc_TimeD_F...'}      {'U03_Acc_TimeD_F...'}      {'U03_Acc_TimeD_M...'}
{'U04_Acc_FreqD_F...'}

    Columns 22 through 25

    {'U04_Acc_FreqD_M...'}      {'U04_Acc_TimeD_F...'}      {'U04_Acc_TimeD_F...'}
{'U04_Acc_TimeD_F...'}

    Columns 26 through 29

```

```
    {'U04_Acc_Timed_M...'}    {'U05_Acc_FreqD_F...'}    {'U05_Acc_FreqD_M...'} ✖  
{ 'U05_Acc_Timed_F...' }
```

Columns 30 through 33

```
    {'U05_Acc_Timed_F...'}    {'U05_Acc_Timed_F...'}    {'U05_Acc_Timed_M...'} ✖  
{ 'U06_Acc_FreqD_F...' }
```

Columns 34 through 37

```
    {'U06_Acc_FreqD_M...'}    {'U06_Acc_Timed_F...'}    {'U06_Acc_Timed_F...'} ✖  
{ 'U06_Acc_Timed_F...' }
```

Columns 38 through 41

```
    {'U06_Acc_Timed_M...'}    {'U07_Acc_FreqD_F...'}    {'U07_Acc_FreqD_M...'} ✖  
{ 'U07_Acc_Timed_F...' }
```

Columns 42 through 45

```
    {'U07_Acc_Timed_F...'}    {'U07_Acc_Timed_F...'}    {'U07_Acc_Timed_M...'} ✖  
{ 'U08_Acc_FreqD_F...' }
```

Columns 46 through 49

```
    {'U08_Acc_FreqD_M...'}    {'U08_Acc_Timed_F...'}    {'U08_Acc_Timed_F...'} ✖  
{ 'U08_Acc_Timed_F...' }
```

Columns 50 through 53

```
    {'U08_Acc_Timed_M...'}    {'U09_Acc_FreqD_F...'}    {'U09_Acc_FreqD_M...'} ✖  
{ 'U09_Acc_Timed_F...' }
```

Columns 54 through 57

```
    {'U09_Acc_Timed_F...'}    {'U09_Acc_Timed_F...'}    {'U09_Acc_Timed_M...'} ✖  
{ 'U10_Acc_FreqD_F...' }
```

Columns 58 through 61

```
    {'U10_Acc_FreqD_M...'}    {'U10_Acc_Timed_F...'}    {'U10_Acc_Timed_F...'} ✖  
{ 'U10_Acc_Timed_F...' }
```

Columns 62 through 63

```
    {'U10_Acc_Timed_M...'}    {'matlab.mat'}
```

Number of .mat files found: 61

Columns 1 through 4

{ 'U01_Acc_FreqD_F...' }	{ 'U01_Acc_FreqD_M...' }	{ 'U01_Acc_TimeD_F...' }	✖
{ 'U01_Acc_TimeD_F...' }			

Columns 5 through 8

{ 'U01_Acc_TimeD_F...' }	{ 'U01_Acc_TimeD_M...' }	{ 'U02_Acc_FreqD_F...' }	✖
{ 'U02_Acc_FreqD_M...' }			

Columns 9 through 12

{ 'U02_Acc_TimeD_F...' }	{ 'U02_Acc_TimeD_F...' }	{ 'U02_Acc_TimeD_F...' }	✖
{ 'U02_Acc_TimeD_M...' }			

Columns 13 through 16

{ 'U03_Acc_FreqD_F...' }	{ 'U03_Acc_FreqD_M...' }	{ 'U03_Acc_TimeD_F...' }	✖
{ 'U03_Acc_TimeD_F...' }			

Columns 17 through 20

{ 'U03_Acc_TimeD_F...' }	{ 'U03_Acc_TimeD_M...' }	{ 'U04_Acc_FreqD_F...' }	✖
{ 'U04_Acc_FreqD_M...' }			

Columns 21 through 24

{ 'U04_Acc_TimeD_F...' }	{ 'U04_Acc_TimeD_F...' }	{ 'U04_Acc_TimeD_F...' }	✖
{ 'U04_Acc_TimeD_M...' }			

Columns 25 through 28

{ 'U05_Acc_FreqD_F...' }	{ 'U05_Acc_FreqD_M...' }	{ 'U05_Acc_TimeD_F...' }	✖
{ 'U05_Acc_TimeD_F...' }			

Columns 29 through 32

{ 'U05_Acc_TimeD_F...' }	{ 'U05_Acc_TimeD_M...' }	{ 'U06_Acc_FreqD_F...' }	✖
{ 'U06_Acc_FreqD_M...' }			

Columns 33 through 36

{ 'U06_Acc_TimeD_F...' }	{ 'U06_Acc_TimeD_F...' }	{ 'U06_Acc_TimeD_F...' }	✖
{ 'U06_Acc_TimeD_M...' }			

Columns 37 through 40

{ 'U07_Acc_FreqD_F...' }	{ 'U07_Acc_FreqD_M...' }	{ 'U07_Acc_TimeD_F...' }	✖
{ 'U07_Acc_TimeD_F...' }			

Columns 41 through 44

```
{'U07_Acc_TimeD_F...'}    {'U07_Acc_TimeD_M...'}    {'U08_Acc_FreqD_F...'} ✖  
{'U08_Acc_FreqD_M...'}  

```

Columns 45 through 48

```
{'U08_Acc_TimeD_F...'}    {'U08_Acc_TimeD_F...'}    {'U08_Acc_TimeD_F...'} ✖  
{'U08_Acc_TimeD_M...'}  

```

Columns 49 through 52

```
{'U09_Acc_FreqD_F...'}    {'U09_Acc_FreqD_M...'}    {'U09_Acc_TimeD_F...'} ✖  
{'U09_Acc_TimeD_F...'}  

```

Columns 53 through 56

```
{'U09_Acc_TimeD_F...'}    {'U09_Acc_TimeD_M...'}    {'U10_Acc_FreqD_F...'} ✖  
{'U10_Acc_FreqD_M...'}  

```

Columns 57 through 60

```
{'U10_Acc_TimeD_F...'}    {'U10_Acc_TimeD_F...'}    {'U10_Acc_TimeD_F...'} ✖  
{'U10_Acc_TimeD_M...'}  

```

Column 61

```
{'matlab.mat'}
```

Processing file: U01\_Acc\_FreqD\_FDay.mat

Fields in the file: U01\_Acc\_FreqD\_FDay.mat  
{'Acc\_FD\_Feat\_Vec'}

Processing file: U01\_Acc\_FreqD\_MDay.mat

Fields in the file: U01\_Acc\_FreqD\_MDay.mat  
{'Acc\_FD\_Feat\_Vec'}

Processing file: U01\_Acc\_TimeD\_FDay.mat

Fields in the file: U01\_Acc\_TimeD\_FDay.mat  
{'Acc\_TD\_Feat\_Vec'}

Processing file: U01\_Acc\_TimeD\_FreqD\_FDay.mat

Fields in the file: U01\_Acc\_TimeD\_FreqD\_FDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

Processing file: U01\_Acc\_TimeD\_FreqD\_MDay.mat

Fields in the file: U01\_Acc\_TimeD\_FreqD\_MDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

```
Processing file: U01_Acc_TimeD_MDay.mat
Fields in the file: U01_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U02_Acc_FreqD_FDay.mat
Fields in the file: U02_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U02_Acc_FreqD_MDay.mat
Fields in the file: U02_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U02_Acc_TimeD_FDay.mat
Fields in the file: U02_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U02_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U02_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U02_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U02_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U02_Acc_TimeD_MDay.mat
Fields in the file: U02_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U03_Acc_FreqD_FDay.mat
Fields in the file: U03_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U03_Acc_FreqD_MDay.mat
Fields in the file: U03_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U03_Acc_TimeD_FDay.mat
Fields in the file: U03_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U03_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U03_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U03_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U03_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U03_Acc_TimeD_MDay.mat
Fields in the file: U03_Acc_TimeD_MDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U04_Acc_FreqD_FDay.mat
Fields in the file: U04_Acc_FreqD_FDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U04_Acc_FreqD_MDay.mat
Fields in the file: U04_Acc_FreqD_MDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U04_Acc_TimeD_FDay.mat
Fields in the file: U04_Acc_TimeD_FDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U04_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U04_Acc_TimeD_FreqD_FDay.mat
{'Acc_TD_FD_Feat_Vec'}
```

```
Processing file: U04_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U04_Acc_TimeD_FreqD_MDay.mat
{'Acc_TD_FD_Feat_Vec'}
```

```
Processing file: U04_Acc_TimeD_MDay.mat
Fields in the file: U04_Acc_TimeD_MDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U05_Acc_FreqD_FDay.mat
Fields in the file: U05_Acc_FreqD_FDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U05_Acc_FreqD_MDay.mat
Fields in the file: U05_Acc_FreqD_MDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U05_Acc_TimeD_FDay.mat
Fields in the file: U05_Acc_TimeD_FDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U05_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U05_Acc_TimeD_FreqD_FDay.mat
{'Acc_TD_FD_Feat_Vec'}
```

```
Processing file: U05_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U05_Acc_TimeD_FreqD_MDay.mat
{'Acc_TD_FD_Feat_Vec'}
```

```
Processing file: U05_Acc_TimeD_MDay.mat
```



Fields in the file: U05\_Acc\_Timed\_MDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

Processing file: U06\_Acc\_FreqD\_FDay.mat  
Fields in the file: U06\_Acc\_FreqD\_FDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

Processing file: U06\_Acc\_FreqD\_MDay.mat  
Fields in the file: U06\_Acc\_FreqD\_MDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

Processing file: U06\_Acc\_Timed\_FDay.mat  
Fields in the file: U06\_Acc\_Timed\_FDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

Processing file: U06\_Acc\_Timed\_FreqD\_FDay.mat  
Fields in the file: U06\_Acc\_Timed\_FreqD\_FDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

Processing file: U06\_Acc\_Timed\_FreqD\_MDay.mat  
Fields in the file: U06\_Acc\_Timed\_FreqD\_MDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

Processing file: U06\_Acc\_Timed\_MDay.mat  
Fields in the file: U06\_Acc\_Timed\_MDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

Processing file: U07\_Acc\_FreqD\_FDay.mat  
Fields in the file: U07\_Acc\_FreqD\_FDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

Processing file: U07\_Acc\_FreqD\_MDay.mat  
Fields in the file: U07\_Acc\_FreqD\_MDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

Processing file: U07\_Acc\_Timed\_FDay.mat  
Fields in the file: U07\_Acc\_Timed\_FDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

Processing file: U07\_Acc\_Timed\_FreqD\_FDay.mat  
Fields in the file: U07\_Acc\_Timed\_FreqD\_FDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

Processing file: U07\_Acc\_Timed\_FreqD\_MDay.mat  
Fields in the file: U07\_Acc\_Timed\_FreqD\_MDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

Processing file: U07\_Acc\_Timed\_MDay.mat  
Fields in the file: U07\_Acc\_Timed\_MDay.mat

```
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U08_Acc_FreqD_FDay.mat  
Fields in the file: U08_Acc_FreqD_FDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U08_Acc_FreqD_MDay.mat  
Fields in the file: U08_Acc_FreqD_MDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U08_Acc_TimeD_FDay.mat  
Fields in the file: U08_Acc_TimeD_FDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U08_Acc_TimeD_FreqD_FDay.mat  
Fields in the file: U08_Acc_TimeD_FreqD_FDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U08_Acc_TimeD_FreqD_MDay.mat  
Fields in the file: U08_Acc_TimeD_FreqD_MDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U08_Acc_TimeD_MDay.mat  
Fields in the file: U08_Acc_TimeD_MDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U09_Acc_FreqD_FDay.mat  
Fields in the file: U09_Acc_FreqD_FDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U09_Acc_FreqD_MDay.mat  
Fields in the file: U09_Acc_FreqD_MDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U09_Acc_TimeD_FDay.mat  
Fields in the file: U09_Acc_TimeD_FDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U09_Acc_TimeD_FreqD_FDay.mat  
Fields in the file: U09_Acc_TimeD_FreqD_FDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U09_Acc_TimeD_FreqD_MDay.mat  
Fields in the file: U09_Acc_TimeD_FreqD_MDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U09_Acc_TimeD_MDay.mat  
Fields in the file: U09_Acc_TimeD_MDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U10_Acc_FreqD_FDay.mat
Fields in the file: U10_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}
```

```
Processing file: U10_Acc_FreqD_MDay.mat
Fields in the file: U10_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_FDay.mat
Fields in the file: U10_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U10_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U10_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_MDay.mat
Fields in the file: U10_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}
```

```
Processing file: matlab.mat
Fields in the file: matlab.mat
    {'a' }
    {'accuracy' }
    {'activation_functions' }
    {'best_accuracy' }
    {'best_net' }
    {'count' }
    {'data' }
    {'dataDir' }
    {'data_groups' }
    {'dataset' }
    {'dirContent' }
    {'featureKey' }
    {'feature_count' }
    {'feature_counts' }
    {'feature_keys' }
    {'features' }
    {'fileName' }
    {'filePath' }
    {'files' }
    {'group_idx' }
    {'group_mean' }
    {'group_std' }
```

```

{'group_variance'      }
{'h'                   }
{'hidden_layer_sizes' }
{'i'                   }
{'k'                   }
{'labels'              }
{'meanTable'           }
{'n_features'          }
{'n_samples'           }
{'n_train'             }
{'net'                 }
{'perm'                }
{'predictions'         }
{'stats_mean'          }
{'stats_std'           }
{'stats_variance'      }
{'stdTable'            }
{'test_data'           }
{'test_labels'         }
{'train_data'          }
{'train_labels'        }
{'train_ratio'         }
{'u'                   }
{'unique_feature_counts'}
{'user_id'             }
{'user_ids'            }
{'varianceTable'       }

```

Statistics for files with 1 features:

Mean Statistics:

Feature\_1

---

1

Variance Statistics:

Feature\_1

---

0

Standard Deviation Statistics:

Feature\_1

---

0

Statistics for files with 43 features:

Mean Statistics:

[illegible]

0.008416	0.43416	0.060571	0.9334	0.00057692	0.06009 ✓
0.0036116	0.00089112	0.012391	0.93283	0.0014891	0.36788 ✓
0.99507	0.93088	0.00064217	0.00089112	0.0038541	0.36628 ✓
0.024816	0.38064	0.00021485	0.06009	0.00060409	0.00034601 ✓
0.00563	0.38043	0.00059823	0.94844	0.00024947	0.00034601 ✓
0.0035024	0.2375	0.014871	0.20141	0.00028736	0.06009 ✓
0.00021221	0.00043475	0.0048882	0.20113	0.00068251	0.00031915 ✓
0.00043475					
0.0081367	0.40058	0.061186	0.94517	0.00039925	0.060749 ✓
0.0036919	0.00073549	0.012257	0.94477	0.0012516	0.37226 ✓
0.99112	0.84126	0.00053251	0.00073549	0.0040293	0.39853 ✓
0.026297	0.4013	0.00017109	0.060749	0.00067869	0.00026987 ✓
0.0060528	0.40113	0.00052774	0.88203	0.00019514	0.00026987 ✓
0.0035165	0.22552	0.013362	0.15434	0.00023716	0.060749 ✓
0.00016814	0.0003654	0.0050072	0.1541	0.00066123	0.00026601 ✓
0.0003654					
0.0067028	0.083111	0.063405	1.0075	0.00029104	0.063164 ✓
0.0039905	0.00044443	0.01026	1.0072	0.0007767	0.38293 ✓
0.97114	0.77911	0.0003245	0.00044443	0.0043319	0.3929 ✓
0.02508	0.37825	0.00026054	0.063164	0.00061433	0.00045493 ✓
0.0061901	0.37799	0.00071018	0.88537	0.00033546	0.00045493 ✓
0.0039464	0.27195	0.015274	0.17582	0.00029857	0.063164 ✓
0.00021975	0.00048827	0.0055499	0.17553	0.00064227	0.00036666 ✓
0.00048827					
0.0069641	0.055247	0.064845	1.0291	0.0002725	0.064586 ✓
0.0041726	0.00046285	0.010652	1.0288	0.0008207	0.38695 ✓
0.95355	0.78215	0.00033917	0.00046285	0.0042222	0.37969 ✓
0.023145	0.33921	0.00027436	0.064586	0.00052335	0.00041086 ✓
0.006094	0.33893	0.00060917	0.91201	0.0003067	0.00041086 ✓
0.0039752	0.27725	0.015601	0.17812	0.0003548	0.064586 ✓
0.00022946	0.00052981	0.005498	0.17776	0.00073675	0.00039567 ✓
0.00052981					
0.0064335	0.14326	0.06129	0.97357	0.0003172	0.061062 ✓
0.0037313	0.00047155	0.0097995	0.97325	0.00071564	0.3616 ✓
0.92722	0.95817	0.00034668	0.00047155	0.002507	0.152 ✓
0.01156	0.16421	0.00017267	0.061062	0.0001285	0.00026438 ✓
0.0035307	0.16404	0.00044437	0.97317	0.00019429	0.00026438 ✓
0.0041955	0.35163	0.021567	0.31813	0.00029995	0.061062 ✓
0.00044925	0.00044208	0.0060129	0.31783	0.00069441	0.00032758 ✓
0.00044208					
0.0070986	0.076223	0.064293	1.0192	0.00031119	0.064016 ✓
0.0041059	0.00049043	0.010785	1.0189	0.0008393	0.37763 ✓
0.82136	0.94814	0.00035746	0.00049043	0.0030866	0.16746 ✓
0.011143	0.13413	0.00019839	0.064016	0.00011699	0.00032105 ✓
0.0043363	0.13393	0.00057175	0.93606	0.0002364	0.00032105 ✓
0.0046482	0.37576	0.021923	0.31776	0.00032948	0.064016 ✓
0.00046805	0.00050875	0.0065559	0.31743	0.00093251	0.00037188 ✓
0.00050875					
0.0066735	0.2235	0.060173	0.95098	0.0003609	0.059909 ✓

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0.0035898    0.00055418    0.010153    0.95062    0.00085932    0.35912 ✓
0.9886      0.9896      0.00040492    0.00055418    0.0026818    0.2273 ✓
0.017016    0.26215    0.00011144    0.059909    0.00028361    0.00018108 ✓
0.0039599    0.26204    0.00047319    0.99049    0.00012504    0.00018108 ✓
0.002961    0.26428    0.019549    0.30373    0.00018457    0.059909 ✓
0.00037894    0.00027799    0.0043057    0.30355    0.00048365    0.00020409 ✓
0.00027799
    0.0066722    0.2353    0.059911    0.94617    0.00034951    0.059647 ✓
0.0035584    0.00054013    0.010138    0.94582    0.00086077    0.35904 ✓
0.98712      0.9889      0.00039307    0.00054013    0.0025774    0.20502 ✓
0.015713    0.24166    0.00016895    0.059647    0.00024141    0.00025398 ✓
0.0036954    0.24149    0.00043479    0.9901    0.00018651    0.00025398 ✓
0.003176    0.29213    0.021208    0.3292    0.0001757    0.059647 ✓
0.00044992    0.00026525    0.0046872    0.32902    0.00046545    0.00019325 ✓
0.00026525
    0.0091768    0.15919    0.067693    1.059    0.00051011    0.067189 ✓
0.0045166    0.0008272    0.013571    1.0585    0.0013899    0.38736 ✓
0.94327      0.30293    0.00059393    0.0008272    0.0042454    0.31213 ✓
0.018505    0.26246    0.00028333    0.067189    0.00032615    0.00044684 ✓
0.0059101    0.26218    0.0010879    0.50081    0.00031515    0.00044684 ✓
0.0029158    0.12052    0.0085482    0.071494    0.00031823    0.067189 ✓
6.546e-05    0.00048164    0.0038077    0.071176    0.00080316    0.00035342 ✓
0.00048164
    0.0091768    0.15919    0.067693    1.059    0.00051011    0.067189 ✓
0.0045166    0.0008272    0.013571    1.0585    0.0013899    0.38736 ✓
0.94327      0.30293    0.00059393    0.0008272    0.0042454    0.31213 ✓
0.018505    0.26246    0.00028333    0.067189    0.00032615    0.00044684 ✓
0.0059101    0.26218    0.0010879    0.50081    0.00031515    0.00044684 ✓
0.0029158    0.12052    0.0085482    0.071494    0.00031823    0.067189 ✓
6.546e-05    0.00048164    0.0038077    0.071176    0.00080316    0.00035342 ✓
0.00048164
    0.0096161    0.1944    0.068224    1.0618    0.00059656    0.067663 ✓
0.0045809    0.00095524    0.013978    1.0612    0.0017959    0.38816 ✓
0.96161      0.44083    0.00067923    0.00095524    0.0033354    0.242 ✓
0.016323    0.23937    0.00025495    0.067663    0.00025753    0.00039082 ✓
0.0046089    0.23912    0.00082444    0.61173    0.00028068    0.00039082 ✓
0.0031319    0.14934    0.0097883    0.083443    0.0003081    0.067663 ✓
8.7901e-05    0.00045932    0.0042089    0.083135    0.00074273    0.00033755 ✓
0.00045932
    0.0091808    0.19768    0.068104    1.0588    0.00044145    0.0676 ✓
0.0045718    0.00077096    0.013694    1.0583    0.0014812    0.38772 ✓
0.96052      0.31155    0.00054495    0.00077096    0.0033992    0.25824 ✓
0.017066    0.24974    0.0002261    0.0676    0.00028115    0.00036357 ✓
0.0047616    0.24952    0.00082665    0.50048    0.00025896    0.00036357 ✓
0.0027903    0.12301    0.0088253    0.07751    0.00030734    0.0676 ✓
7.0634e-05    0.00046714    0.00366    0.077202    0.00069239    0.00034914 ✓
0.00046714
    0.0084245    0.02051    0.068722    1.0834    0.00044609    0.06833 ✓
0.0046724    0.00072084    0.012583    1.083    0.001151    0.39126 ✓

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[illegible]



1.1719e-06	0.010992	2.8787e-06	0.00097259	9.2147e-08	3.0928e-06 ✓
4.3878e-08	2.9807e-07	9.2567e-07	0.00097577	4.6854e-07	8.7032e-05 ✓
0.00031368	6.3603e-05	1.7428e-07	2.9807e-07	5.6048e-07	0.002334 ✓
2.7942e-06	0.00045223	5.6031e-08	3.0928e-06	3.4229e-09	1.4864e-07 ✓
8.5822e-07	0.00045044	2.5248e-07	5.9409e-05	8.5801e-08	1.4864e-07 ✓
3.9543e-07	0.00039944	8.6874e-07	0.00029547	5.6174e-08	3.0928e-06 ✓
1.8788e-09	1.1011e-07	4.1585e-07	0.00029866	1.6464e-07	6.4354e-08 ✓
1.1011e-07					
9.0157e-07	0.007888	2.6368e-06	0.00081104	1.2614e-07	2.7079e-06 ✓
3.8992e-08	2.4103e-07	7.7482e-07	0.00081306	3.1657e-07	8.0449e-05 ✓
0.00045819	9.0879e-05	1.4531e-07	2.4103e-07	4.8762e-07	0.0032557 ✓
4.5288e-06	0.00082418	3.2561e-08	2.7079e-06	5.3425e-09	6.3502e-08 ✓
1.0283e-06	0.00082545	1.0211e-07	7.3585e-05	3.9257e-08	6.3502e-08 ✓
1.1668e-07	0.0002187	1.0873e-06	0.00038816	1.9833e-08	2.7079e-06 ✓
2.2305e-09	3.8164e-08	3.4216e-07	0.00038923	6.4166e-08	2.3045e-08 ✓
3.8164e-08					
8.3217e-07	0.0068704	2.3786e-06	0.00071292	1.8424e-07	2.7319e-06 ✓
4.0254e-08	3.7162e-07	5.9133e-07	0.00073234	6.3529e-07	8.1777e-05 ✓
3.1021e-05	0.013722	2.1825e-07	3.7162e-07	2.7045e-07	0.00071641 ✓
1.5197e-06	0.00033246	6.9458e-08	2.7319e-06	4.6223e-09	1.5202e-07 ✓
2.1542e-07	0.00033304	2.2585e-07	0.0099839	9.0942e-08	1.5202e-07 ✓
2.0044e-07	0.00047569	8.0471e-07	0.00028043	4.8719e-08	2.7319e-06 ✓
3.2963e-10	1.0215e-07	3.705e-07	0.00028232	1.2235e-07	6.2154e-08 ✓
1.0215e-07					
9.0536e-07	0.007175	1.1692e-06	0.00035508	1.0546e-07	1.3122e-06 ✓
2.1462e-08	2.1393e-07	8.8944e-07	0.00036122	4.67e-07	3.2301e-05 ✓
3.4261e-05	0.013594	1.2314e-07	2.1393e-07	4.8499e-07	0.00034658 ✓
4.6346e-07	0.00013762	6.4488e-08	1.3122e-06	1.7286e-09	1.4748e-07 ✓
4.863e-07	0.00013785	2.3679e-07	0.0094956	8.7657e-08	1.4748e-07 ✓
7.7489e-07	0.0014321	1.1804e-06	0.00018494	4.6717e-08	1.3122e-06 ✓
2.9144e-10	1.161e-07	1.21e-06	0.00018714	1.6729e-07	7.0381e-08 ✓
1.161e-07					
1.2291e-06	0.0070419	7.0953e-07	0.00012768	1.4148e-07	7.8517e-07 ✓
1.1283e-08	2.6255e-07	1.3367e-06	0.00013161	4.4733e-07	2.4922e-05 ✓
3.1987e-06	0.0002523	1.5897e-07	2.6255e-07	2.4695e-07	0.00045841 ✓
9.9851e-07	0.00029231	2.2439e-08	7.8517e-07	2.5097e-09	4.0644e-08 ✓
3.2383e-07	0.00029184	8.5906e-08	0.00027304	2.4866e-08	4.0644e-08 ✓
2.907e-07	0.0013097	2.8661e-06	0.00066608	6.0468e-08	7.8517e-07 ✓
2.4511e-09	1.2155e-07	3.7834e-07	0.0006701	1.5653e-07	7.1678e-08 ✓
1.2155e-07					
1.3559e-06	0.008217	1.3256e-06	0.00052974	1.0639e-07	1.5401e-06 ✓
2.1649e-08	4.184e-07	9.3103e-07	0.00052953	5.7573e-07	2.3859e-05 ✓
3.1948e-05	0.0012684	2.4675e-07	4.184e-07	5.7869e-07	0.0017891 ✓
1.3267e-06	0.00023279	4.0114e-08	1.5401e-06	3.6626e-09	8.2453e-08 ✓
9.4552e-07	0.00023362	1.5826e-07	0.00072228	4.7471e-08	8.2453e-08 ✓
5.0734e-07	0.0015147	1.8553e-06	0.00038377	4.5669e-08	1.5401e-06 ✓
1.7387e-09	9.3557e-08	8.1143e-07	0.00038624	2.2653e-07	5.3963e-08 ✓
9.3557e-08					
9.5932e-07	0.0075849	6.8659e-07	0.00026873	1.0284e-07	8.2123e-07 ✓

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1.294e-08    2.0474e-07    7.9208e-07    0.00027475    2.309e-07    2.6272e-05 ✓
7.3017e-05    0.0046786    1.2088e-07    2.0474e-07    3.2223e-07    0.0013907 ✓
2.0428e-06    0.00038475    4.5418e-08    8.2123e-07    4.9811e-09    1.1869e-07 ✓
5.1227e-07    0.00038414    1.8485e-07    0.0040071    7.1482e-08    1.1869e-07 ✓
5.2098e-07    0.0016127    1.7197e-06    0.00068591    4.4613e-08    8.2123e-07 ✓
1.475e-09    1.2189e-07    1.0393e-06    0.00068591    1.6481e-07    7.1664e-08 ✓
1.2189e-07
    1.328e-06    0.0075177    1.2244e-06    0.00033522    9.6448e-08    1.254e-06 ✓
2.1178e-08    3.6282e-07    8.1826e-07    0.00033928    4.581e-07    4.1354e-05 ✓
0.00019642    0.003287    2.1518e-07    3.6282e-07    3.4764e-07    0.0024877 ✓
3.8842e-06    0.00071753    5.3792e-08    1.254e-06    7.2121e-09    1.0837e-07 ✓
5.4858e-07    0.00071901    1.6486e-07    0.0025769    6.3446e-08    1.0837e-07 ✓
5.4836e-07    0.0011744    1.5469e-06    0.00052657    8.6725e-08    1.254e-06 ✓
1.5558e-09    1.7545e-07    8.8098e-07    0.00052728    2.1529e-07    1.0331e-07 ✓
1.7545e-07
    1.2905e-06    0.0072842    2.9032e-06    0.00073126    1.1441e-07    2.83e-06 ✓
4.3205e-08    2.2719e-07    1.2485e-06    0.00073122    2.9232e-07    8.1538e-05 ✓
0.00089719    9.8072e-05    1.3364e-07    2.2719e-07    2.5104e-07    0.00073576 ✓
9.097e-07    9.5116e-05    2.1251e-08    2.83e-06    4.5237e-10    4.3862e-08 ✓
4.3789e-07    9.4774e-05    6.2522e-08    0.000114    2.5515e-08    4.3862e-08 ✓
3.4348e-07    0.00028932    3.174e-07    0.00013749    4.1247e-08    2.83e-06 ✓
6.9023e-10    8.2595e-08    5.2855e-07    0.00013873    1.2593e-07    4.8657e-08 ✓
8.2595e-08
    1.0033e-06    0.026272    7.8034e-06    0.0026498    9.8288e-08    8.1069e-06 ✓
1.3027e-07    1.9067e-07    1.3499e-06    0.0026545    2.2956e-07    0.00014287 ✓
0.0035204    0.00040084    1.1578e-07    1.9067e-07    3.7335e-07    0.001605 ✓
2.325e-06    0.00030331    3.5686e-08    8.1069e-06    1.0135e-09    6.7801e-08 ✓
5.6775e-07    0.00030347    1.8612e-07    0.00093057    4.0227e-08    6.7801e-08 ✓
8.0472e-07    0.0059753    8.2394e-06    0.0017055    5.0671e-08    8.1069e-06 ✓
2.0895e-08    9.8548e-08    1.4871e-06    0.0016995    2.0467e-07    5.8889e-08 ✓
9.8548e-08
    9.9404e-07    0.0048021    5.3102e-07    0.00018863    1.1445e-07    6.4753e-07 ✓
9.168e-09    2.2536e-07    6.9499e-07    0.00019341    2.7183e-07    9.4696e-06 ✓
5.204e-05    0.00010077    1.33e-07    2.2536e-07    1.3741e-07    0.00019385 ✓
2.8467e-07    7.1788e-05    1.0128e-08    6.4753e-07    3.3265e-10    1.9706e-08 ✓
2.3863e-07    7.2309e-05    5.7147e-08    5.7198e-05    1.1554e-08    1.9706e-08 ✓
3.2431e-07    0.0012739    4.5066e-06    0.0011723    2.2207e-08    6.4753e-07 ✓
7.6339e-09    4.5761e-08    5.2106e-07    0.0011702    7.4627e-08    2.7146e-08 ✓
4.5761e-08
    9.7064e-07    0.0045944    6.3199e-07    0.00019741    1.0485e-07    6.9485e-07 ✓
9.8826e-09    2.0914e-07    8.4053e-07    0.00019977    2.5522e-07    1.0739e-05 ✓
5.6146e-05    0.00013533    1.2362e-07    2.0914e-07    8.372e-08    7.1881e-05 ✓
3.1061e-07    0.00011222    1.4626e-08    6.9485e-07    3.2418e-10    2.9495e-08 ✓
1.3751e-07    0.000112    6.3854e-08    4.7466e-05    1.66e-08    2.9495e-08 ✓
3.0256e-07    0.0022582    9.0319e-06    0.0023627    2.3018e-08    6.9485e-07 ✓
1.5439e-08    4.5878e-08    7.4806e-07    0.002363    5.9311e-08    2.7098e-08 ✓
4.5878e-08
    1.1633e-06    0.013493    2.0712e-06    0.00068751    2.0411e-07    2.3538e-06 ✓
4.2297e-08    4.3761e-07    9.1269e-07    0.00069743    6.3371e-07    6.5141e-05 ✓
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0.00017854	0.010482	2.6503e-07	4.3761e-07	3.2856e-07	0.00075458 ✓
8.045e-07	0.00021602	3.3305e-08	2.3538e-06	1.0156e-09	6.7702e-08 ✓
5.5527e-07	0.00021676	2.3611e-07	0.0085409	3.8009e-08	6.7702e-08 ✓
4.5744e-07	0.00090014	1.1098e-06	0.00018833	4.6511e-08	2.3538e-06 ✓
2.665e-10	9.2457e-08	7.6494e-07	0.00019072	1.1808e-07	5.6012e-08 ✓
9.2457e-08					
1.1633e-06	0.013493	2.0712e-06	0.00068751	2.0411e-07	2.3538e-06 ✓
4.2297e-08	4.3761e-07	9.1269e-07	0.00069743	6.3371e-07	6.5141e-05 ✓
0.00017854	0.010482	2.6503e-07	4.3761e-07	3.2856e-07	0.00075458 ✓
8.045e-07	0.00021602	3.3305e-08	2.3538e-06	1.0156e-09	6.7702e-08 ✓
5.5527e-07	0.00021676	2.3611e-07	0.0085409	3.8009e-08	6.7702e-08 ✓
4.5744e-07	0.00090014	1.1098e-06	0.00018833	4.6511e-08	2.3538e-06 ✓
2.665e-10	9.2457e-08	7.6494e-07	0.00019072	1.1808e-07	5.6012e-08 ✓
9.2457e-08					
1.3495e-06	0.020303	2.2702e-06	0.00098884	2.2623e-07	2.618e-06 ✓
4.6524e-08	4.8344e-07	1.0917e-06	0.00099957	9.4847e-07	6.7954e-05 ✓
0.00019771	0.033392	2.8848e-07	4.8344e-07	2.7842e-07	0.00074619 ✓
1.5168e-06	0.00037423	3.0491e-08	2.618e-06	1.5469e-09	5.7501e-08 ✓
3.4287e-07	0.00037541	1.3895e-07	0.024474	3.4824e-08	5.7501e-08 ✓
5.9729e-07	0.0017911	2.1969e-06	0.00020383	6.703e-08	2.618e-06 ✓
6.7377e-10	1.3109e-07	1.0436e-06	0.00020394	1.724e-07	7.8116e-08 ✓
1.3109e-07					
1.7914e-06	0.014706	1.9106e-06	0.00068955	2.1087e-07	2.1874e-06 ✓
3.9425e-08	5.1515e-07	1.1462e-06	0.00070027	9.539e-07	5.5202e-05 ✓
0.00012724	0.017272	3.0878e-07	5.1515e-07	2.0503e-07	0.00024522 ✓
5.6959e-07	0.00015318	2.7499e-08	2.1874e-06	7.1503e-10	6.2813e-08 ✓
2.5422e-07	0.00015414	1.6862e-07	0.0098881	3.6578e-08	6.2813e-08 ✓
6.9794e-07	0.00090165	9.6318e-07	0.00014572	6.6938e-08	2.1874e-06 ✓
2.2123e-10	1.4095e-07	8.3596e-07	0.00014787	1.6977e-07	8.2303e-08 ✓
1.4095e-07					
1.0923e-06	0.011059	3.5408e-06	0.00090375	1.3643e-07	3.5407e-06 ✓
6.6755e-08	2.5404e-07	1.0909e-06	0.00090556	3.6507e-07	0.00012718 ✓
0.00043359	0.015583	1.5478e-07	2.5404e-07	3.6673e-07	0.0018436 ✓
1.4959e-06	0.00018023	3.915e-08	3.5407e-06	1.6221e-09	8.1891e-08 ✓
7.2732e-07	0.00017976	1.7535e-07	0.019372	4.7607e-08	8.1891e-08 ✓
3.8335e-07	0.00135	2.2966e-06	0.00021571	3.8131e-08	3.5407e-06 ✓
6.1062e-10	7.8922e-08	6.3785e-07	0.00021673	8.2447e-08	4.7058e-08 ✓
7.8922e-08					
1.1476e-06	0.013437	4.5495e-06	0.0010962	1.3685e-07	4.5726e-06 ✓
8.8002e-08	2.5222e-07	1.5859e-06	0.0011038	3.3375e-07	0.00014479 ✓
0.00066297	0.01218	1.5862e-07	2.5222e-07	9.4404e-07	0.0054577 ✓
4.8764e-06	0.00079633	5.6555e-08	4.5726e-06	5.8499e-09	1.0769e-07 ✓
1.7754e-06	0.00079668	2.4166e-07	0.015671	6.3699e-08	1.0769e-07 ✓
5.1384e-07	0.0014947	1.7099e-06	9.8677e-05	5.9298e-08	4.5726e-06 ✓
4.6096e-10	1.3998e-07	8.2067e-07	9.8723e-05	1.5937e-07	8.4323e-08 ✓
1.3998e-07					
2.0166e-06	0.016921	3.2408e-06	0.0012072	2.0476e-07	3.5289e-06 ✓
5.79e-08	5.5773e-07	1.3171e-06	0.0012091	1.6285e-06	0.00015694 ✓
0.010908	0.00030384	3.223e-07	5.5773e-07	9.059e-07	0.0047118 ✓

4.4851e-06	0.00062845	1.1504e-07	3.5289e-06	4.279e-09	2.4663e-07 ✓
1.3247e-06	0.0006315	3.6287e-07	0.0082289	1.4699e-07	2.4663e-07 ✓
7.6383e-07	0.00098508	1.5093e-06	0.00062842	8.1667e-08	3.5289e-06 ✓
4.2826e-09	2.1762e-07	1.2214e-06	0.00063248	4.6716e-07	1.2457e-07 ✓
2.1762e-07					
2.1493e-06	0.069036	8.9095e-06	0.0030102	2.2366e-07	9.9766e-06 ✓
2.2389e-07	4.6252e-07	2.0258e-06	0.003041	9.2065e-07	0.00038233 ✓
0.0019417	0.00060597	2.6483e-07	4.6252e-07	3.7275e-06	0.015608 ✓
7.4435e-06	0.00088149	1.9929e-07	9.9766e-06	2.6481e-08	4.0472e-07 ✓
5.2898e-06	0.00088937	7.8522e-07	0.0032802	2.3602e-07	4.0472e-07 ✓
1.2179e-06	0.0025957	6.4333e-07	0.00040454	4.9939e-08	9.9766e-06 ✓
1.4455e-09	9.7794e-08	2.5733e-06	0.00040573	1.5308e-07	5.9068e-08 ✓
9.7794e-08					

## Standard Deviation Statistics:

Feature_1	Feature_2	Feature_3	Feature_4	Feature_5	Feature_6 ✓
Feature_7	Feature_8	Feature_9	Feature_10	Feature_11	Feature_12 ✓
Feature_13	Feature_14	Feature_15	Feature_16	Feature_17	Feature_18 ✓
Feature_19	Feature_20	Feature_21	Feature_22	Feature_23	Feature_24 ✓
Feature_25	Feature_26	Feature_27	Feature_28	Feature_29	Feature_30 ✓
Feature_31	Feature_32	Feature_33	Feature_34	Feature_35	Feature_36 ✓
Feature_37	Feature_38	Feature_39	Feature_40	Feature_41	Feature_42 ✓
Feature_43					
					✓
					✓
					✓
					✓
					✓
					✓
					✓
0.0010825	0.10484	0.0016967	0.031186	0.00030356	0.0017586 ✓
0.00020947	0.00054596	0.00096212	0.031237	0.0006845	0.0093291 ✓
0.017711	0.0079751	0.00041747	0.00054596	0.00074865	0.048311 ✓
0.0016716	0.021266	0.00023671	0.0017586	5.8505e-05	0.00038554 ✓
0.0009264	0.021223	0.00050247	0.0077077	0.00029292	0.00038554 ✓
0.00062883	0.019986	0.00093206	0.017189	0.00023701	0.0017586 ✓
4.3346e-05	0.00033183	0.00064486	0.017282	0.00040575	0.00025368 ✓
0.00033183					
0.00094951	0.088815	0.0016238	0.028479	0.00035516	0.0016456 ✓
0.00019746	0.00049095	0.00088024	0.028514	0.00056265	0.0089693 ✓
0.021405	0.009533	0.00038119	0.00049095	0.0006983	0.057059 ✓
0.0021281	0.028709	0.00018045	0.0016456	7.3092e-05	0.000252 ✓
0.001014	0.028731	0.00031955	0.0085782	0.00019813	0.000252 ✓
0.00034158	0.014789	0.0010428	0.019702	0.00014083	0.0016456 ✓
4.7228e-05	0.00019536	0.00058494	0.019729	0.00025331	0.00015181 ✓
0.00019536					
0.00091223	0.082888	0.0015423	0.026701	0.00042923	0.0016528 ✓

0.00020063	0.00060961	0.00076898	0.027062	0.00079705	0.009043 ✓
0.0055697	0.11714	0.00046717	0.00060961	0.00052005	0.026766 ✓
0.0012328	0.018234	0.00026355	0.0016528	6.7987e-05	0.0003899 ✓
0.00046413	0.018249	0.00047524	0.09992	0.00030157	0.0003899 ✓
0.00044771	0.02181	0.00089706	0.016746	0.00022072	0.0016528 ✓
1.8156e-05	0.00031961	0.00060868	0.016802	0.00034978	0.00024931 ✓
0.00031961					
0.0009515	0.084706	0.0010813	0.018844	0.00032474	0.0011455 ✓
0.0001465	0.00046253	0.0009431	0.019006	0.00068338	0.0056834 ✓
0.0058533	0.1166	0.00035091	0.00046253	0.00069641	0.018617 ✓
0.00068078	0.011731	0.00025394	0.0011455	4.1576e-05	0.00038403 ✓
0.00069736	0.011741	0.00048661	0.097446	0.00029607	0.00038403 ✓
0.00088028	0.037843	0.0010864	0.013599	0.00021614	0.0011455 ✓
1.7071e-05	0.00034074	0.0011	0.01368	0.00040902	0.00026529 ✓
0.00034074					
0.0011086	0.083916	0.00084234	0.0113	0.00037613	0.0008861 ✓
0.00010622	0.00051239	0.0011561	0.011472	0.00066883	0.0049922 ✓
0.0017885	0.015884	0.00039871	0.00051239	0.00049694	0.02141 ✓
0.00099926	0.017097	0.0001498	0.0008861	5.0096e-05	0.0002016 ✓
0.00056906	0.017083	0.0002931	0.016524	0.00015769	0.0002016 ✓
0.00053916	0.036189	0.001693	0.025809	0.0002459	0.0008861 ✓
4.9509e-05	0.00034864	0.00061509	0.025886	0.00039564	0.00026773 ✓
0.00034864					
0.0011644	0.090647	0.0011513	0.023016	0.00032617	0.001241 ✓
0.00014714	0.00064684	0.0009649	0.023011	0.00075877	0.0048845 ✓
0.0056523	0.035615	0.00049674	0.00064684	0.00076072	0.042298 ✓
0.0011518	0.015257	0.00020028	0.001241	6.052e-05	0.00028715 ✓
0.00097238	0.015285	0.00039782	0.026875	0.00021788	0.00028715 ✓
0.00071227	0.038919	0.0013621	0.01959	0.0002137	0.001241 ✓
4.1698e-05	0.00030587	0.00090079	0.019653	0.00047595	0.0002323 ✓
0.00030587					
0.00097945	0.087091	0.00082861	0.016393	0.00032069	0.00090622 ✓
0.00011375	0.00045248	0.00088999	0.016575	0.00048052	0.0051256 ✓
0.008545	0.068401	0.00034768	0.00045248	0.00056765	0.037292 ✓
0.0014293	0.019615	0.00021312	0.00090622	7.0577e-05	0.00034451 ✓
0.00071573	0.0196	0.00042994	0.063301	0.00026736	0.00034451 ✓
0.00072179	0.040158	0.0013114	0.02619	0.00021122	0.00090622 ✓
3.8406e-05	0.00034913	0.0010195	0.02619	0.00040597	0.0002677 ✓
0.00034913					
0.0011524	0.086705	0.0011065	0.018309	0.00031056	0.0011198 ✓
0.00014553	0.00060234	0.00090458	0.018419	0.00067683	0.0064307 ✓
0.014015	0.057333	0.00046388	0.00060234	0.00058961	0.049877 ✓
0.0019708	0.026787	0.00023193	0.0011198	8.4924e-05	0.0003292 ✓
0.00074066	0.026814	0.00040603	0.050763	0.00025188	0.0003292 ✓
0.00074051	0.034269	0.0012438	0.022947	0.00029449	0.0011198 ✓
3.9444e-05	0.00041887	0.0009386	0.022963	0.00046399	0.00032141 ✓
0.00041887					
0.001136	0.085348	0.0017039	0.027042	0.00033824	0.0016823 ✓
0.00020786	0.00047665	0.0011174	0.027041	0.00054067	0.0090298 ✓

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0.029953      0.0099032    0.00036557    0.00047665    0.00050103    0.027125 ✓
0.00095378    0.0097528    0.00014578    0.0016823    2.1269e-05    0.00020943 ✓
0.00066173    0.0097352    0.00025004    0.010677    0.00015973    0.00020943 ✓
0.00058607    0.017009    0.00056338    0.011726    0.00020309    0.0016823 ✓
2.6272e-05    0.00028739    0.00072701    0.011779    0.00035487    0.00022058 ✓
0.00028739
    0.0010016    0.16209      0.0027935    0.051476    0.00031351    0.0028473 ✓
0.00036092    0.00043665    0.0011619    0.051521    0.00047913    0.011953 ✓
0.059333      0.020021    0.00034027    0.00043665    0.00061102    0.040063 ✓
0.0015248    0.017416    0.00018891    0.0028473    3.1835e-05    0.00026039 ✓
0.00075349    0.01742     0.00043142    0.030505    0.00020057    0.00026039 ✓
0.00089706    0.0773      0.0028704    0.041297    0.0002251     0.0028473 ✓
0.00014455    0.00031392    0.0012195    0.041225    0.00045241    0.00024267 ✓
0.00031392
    0.00099701    0.069297    0.00072871    0.013734    0.00033831    0.00080469 ✓
9.575e-05     0.00047472    0.00083366    0.013907    0.00052138    0.0030773 ✓
0.0072139     0.010038    0.00036469    0.00047472    0.00037069    0.013923 ✓
0.00053354    0.0084728    0.00010064    0.00080469    1.8239e-05    0.00014038 ✓
0.0004885     0.0085034    0.00023906    0.007563     0.00010749    0.00014038 ✓
0.00056948    0.035692     0.0021229    0.034239    0.00014902    0.00080469 ✓
8.7372e-05    0.00021392    0.00072184    0.034208    0.00027318    0.00016476 ✓
0.00021392
    0.00098521    0.067782    0.00079498    0.01405     0.00032381    0.00083358 ✓
9.9411e-05    0.00045732    0.0009168     0.014134    0.00050519    0.003277 ✓
0.0074931     0.011633    0.00035159    0.00045732    0.00028934    0.0084783 ✓
0.00055732    0.010593    0.00012094    0.00083358    1.8005e-05    0.00017174 ✓
0.00037082    0.010583    0.00025269    0.0068896    0.00012884    0.00017174 ✓
0.00055006    0.047521     0.0030053    0.048607    0.00015172    0.00083358 ✓
0.00012426    0.00021419    0.00086491    0.04861     0.00024354    0.00016462 ✓
0.00021419
    0.0010785     0.11616     0.0014392    0.02622     0.00045179    0.0015342 ✓
0.00020566    0.00066152    0.00095535    0.026409    0.00079606    0.008071 ✓
0.013362      0.10238     0.00051481    0.00066152    0.0005732     0.02747 ✓
0.00089694    0.014698     0.0001825    0.0015342    3.1869e-05    0.0002602 ✓
0.00074517    0.014723     0.00048591    0.092417    0.00019496    0.0002602 ✓
0.00067634    0.030002     0.0010535    0.013723    0.00021567    0.0015342 ✓
1.6325e-05    0.00030407    0.00087461    0.01381     0.00034363    0.00023667 ✓
0.00030407
    0.0010785     0.11616     0.0014392    0.02622     0.00045179    0.0015342 ✓
0.00020566    0.00066152    0.00095535    0.026409    0.00079606    0.008071 ✓
0.013362      0.10238     0.00051481    0.00066152    0.0005732     0.02747 ✓
0.00089694    0.014698     0.0001825    0.0015342    3.1869e-05    0.0002602 ✓
0.00074517    0.014723     0.00048591    0.092417    0.00019496    0.0002602 ✓
0.00067634    0.030002     0.0010535    0.013723    0.00021567    0.0015342 ✓
1.6325e-05    0.00030407    0.00087461    0.01381     0.00034363    0.00023667 ✓
0.00030407
    0.0011617     0.14249     0.0015067    0.031446     0.00047563    0.001618 ✓
0.0002157     0.0006953    0.0010449    0.031616    0.00097389    0.0082434 ✓
0.014061      0.18273     0.0005371    0.0006953    0.00052765    0.027316 ✓
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0.0012316      0.019345      0.00017462      0.001618      3.9331e-05      0.00023979 ✓
0.00058555      0.019375      0.00037276      0.15644      0.00018661      0.00023979 ✓
0.00077284      0.042321      0.0014822      0.014277      0.0002589      0.001618 ✓
2.5957e-05      0.00036206      0.0010216      0.014281      0.00041521      0.00027949 ✓
0.00036206
      0.0013384      0.12127      0.0013823      0.026259      0.00045921      0.001479 ✓
0.00019856      0.00071774      0.0010706      0.026463      0.00097668      0.0074298 ✓
0.01128      0.13142      0.00055568      0.00071774      0.00045281      0.01566 ✓
0.00075471      0.012376      0.00016583      0.001479      2.674e-05      0.00025062 ✓
0.0005042      0.012415      0.00041064      0.099439      0.00019125      0.00025062 ✓
0.00083543      0.030028      0.00098142      0.012072      0.00025872      0.001479 ✓
1.4874e-05      0.00037543      0.00091431      0.01216      0.00041204      0.00028688 ✓
0.00037543
      0.0010452      0.10516      0.0018817      0.030062      0.00036937      0.0018817 ✓
0.00025837      0.00050402      0.0010445      0.030093      0.00060421      0.011277 ✓
0.020823      0.12483      0.00039342      0.00050402      0.00060558      0.042937 ✓
0.0012231      0.013425      0.00019786      0.0018817      4.0275e-05      0.00028617 ✓
0.00085283      0.013408      0.00041875      0.13918      0.00021819      0.00028617 ✓
0.00061915      0.036743      0.0015155      0.014687      0.00019527      0.0018817 ✓
2.4711e-05      0.00028093      0.00079866      0.014722      0.00028714      0.00021693 ✓
0.00028093
      0.0010713      0.11592      0.002133      0.033109      0.00036994      0.0021384 ✓
0.00029665      0.00050222      0.0012593      0.033223      0.00057771      0.012033 ✓
0.025748      0.11036      0.00039827      0.00050222      0.00097162      0.073876 ✓
0.0022082      0.028219      0.00023781      0.0021384      7.6484e-05      0.00032816 ✓
0.0013324      0.028226      0.00049159      0.12518      0.00025239      0.00032816 ✓
0.00071683      0.038662      0.0013076      0.0099337      0.00024351      0.0021384 ✓
2.147e-05      0.00037414      0.00090591      0.009936      0.00039922      0.00029038 ✓
0.00037414
      0.0014201      0.13008      0.0018002      0.034745      0.0004525      0.0018785 ✓
0.00024062      0.00074681      0.0011476      0.034772      0.0012761      0.012528 ✓
0.10444      0.017431      0.00056772      0.00074681      0.00095179      0.068642 ✓
0.0021178      0.025069      0.00033917      0.0018785      6.5414e-05      0.00049662 ✓
0.0011509      0.02513      0.00060239      0.090713      0.0003834      0.00049662 ✓
0.00087398      0.031386      0.0012285      0.025068      0.00028577      0.0018785 ✓
6.5442e-05      0.00046649      0.0011052      0.025149      0.00068349      0.00035294 ✓
0.00046649
      0.0014661      0.26275      0.0029849      0.054866      0.00047292      0.0031586 ✓
0.00047317      0.00068009      0.0014233      0.055146      0.00095951      0.019553 ✓
0.044065      0.024616      0.00051462      0.00068009      0.0019307      0.12493 ✓
0.0027283      0.02969      0.00044642      0.0031586      0.00016273      0.00063617 ✓
0.0023      0.029822      0.00088612      0.057273      0.00048582      0.00063617 ✓
0.0011036      0.050948      0.00080208      0.020113      0.00022347      0.0031586 ✓
3.802e-05      0.00031272      0.0016042      0.020143      0.00039126      0.00024304 ✓
0.00031272

```

Statistics for files with 88 features:

Mean Statistics:

Feature_1	Feature_2	Feature_3	Feature_4	Feature_5	Feature_6 ✓
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[illegible]



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0.082424      0.49367      0.27689      -0.5434      0.12914      -0.63518 ✖
-0.31384     -0.23441     -0.077146    -0.21982     0.52487      0.10227 ✖
0.092334      0.34446     0.0086714    0.36247     0.074578     0.42261 ✖
0.35692      0.12489     -0.58112     0.2859      0.36247     0.50579 ✖
0.43068      5.7137      15.757      18.778      3.0438      31.602 ✖
9.5278       2.8168      31.358      9.6111      0.5         0.055556 ✖
19.25       97.75      133.69      48.667      0.083333    0 ✖
0           0          0          0          2.1389      81.778      215.11 ✖
0.97222      0          0          0          0          0          0 ✖
0           0          0          0.61111    25.556      182.17 ✖
91.667      0          0          0          0          0          0
    1.3996      0.66471    0.16649    0.98701    0.028039    0.96082 ✖
0.12764      0.7349      1.0011      0.68917    0.46454     0.17729 ✖
0.56906      2.9798      0.88336     0.96082    1.1294      0.98441 ✖
0.75485      0.17012     0.14789     0.42598    0.022164     0.44524 ✖
0.12768      0.58473     0.45105     0.79423    0.24895     0.091313 ✖
0.28276      0.44524     0.7178      0.40421    0.33036     -0.18595 ✖
0.14104      0.078317    0.020028    0.083777    0.12795     0.5163 ✖
0.16235      0.26712     -0.019204   -0.056554   0.083777    0.31179 ✖
0.22751      6.0809      16.728      17.917     2.0128      32.658 ✖
9.3889       1.644      32.202      9.5278     0.5         0.027778 ✖
0.36111      73.194      161.17      50.222     14.528      0 ✖
0           0          0          0          0          0          0 ✖
85.667      173.14      41.194      0          0          0          0 ✖
0          0.11111    1.9722      116.72     95.528      85.667 ✖
0           0          0          0          0          0          0
    1.4403      0.65187    0.1773      1.0136     0.031937    0.99308 ✖
0.13754      0.78838      1.0292      0.68418    0.40553     0.20011 ✖
0.40593      2.8125      0.90271     0.99308    1.1853      1.0103 ✖
0.80847      0.11234     0.1856      0.43641    0.034595     0.46892 ✖
0.16643      0.69613     0.47426     0.77782    0.33848     -0.020293 ✖
0.24957      0.46892     0.76391     0.48158    0.25183     -0.34728 ✖
0.14477      -0.022688    0.021169    -0.032071   0.12715     0.59911 ✖
0.14781      0.25182     -0.13138    -0.14411   -0.032071   0.22423 ✖
0.16003      6.2605      16.567      18.111     1.7327      32.534 ✖
9.3889       2.3836      31.573      9.6944     0.47222     0.055556 ✖
0.63889      61.278      159.97      54.361     23.083      0.13889 ✖
0           0          0          0          0          0          0 ✖
100.92      131.5      67.25      0.33333    0          0          0 ✖
0.66667      1.9722      16.861      143.19     124.31      12.944 ✖
0.055556      0          0          0          0          0          0
    1.443      0.46905    0.26639     0.93689    0.072485     0.93308 ✖
0.23293      0.9739      0.97461     0.774      0.62069     0.47736 ✖
0.048441     1.7996      0.69316     0.93308    1.2863      1.1913 ✖
0.64824      0.15198     0.1163      0.37907    0.013852     0.37155 ✖
0.096166     0.49626     0.39692     0.69389     0.1682      0.26282 ✖
0.28997      0.37155     0.62757     0.42734     0.45629     -0.055331 ✖
0.12937      0.20299     0.016885     0.2198     0.10713     0.51163 ✖
0.24073      0.19394     -0.21502     0.10234     0.2198      0.44452 ✖

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0.35854      5.915      16.176      18.389      2.3463      32.338 ✓
9.2778      2.1559      32.215      9.3889      0.5      0.86111 ✓
58.389      74.306      67.361      75.194      23.222      0.16667 ✓
0      0      0      0      0      0      0 ✓
83.722      204.83      11.444      0      0      0 ✓
0      0      0      24.861      108.64      147.39 ✓
19.111      0      0
    1.4616      0.49507      0.25347      0.94623      0.064779      0.93921 ✓
0.21812      0.96655      0.97983      0.66229      0.57064      0.42833 ✓
0.14136      1.96      0.72046      0.93921      1.257      1.1435 ✓
0.68198      0.12529      0.12476      0.3991      0.015888      0.3966 ✓
0.09663      0.55669      0.41836      0.83996      0.14119      0.07801 ✓
0.32708      0.3966      0.66487      0.41995      0.46691      -0.12547 ✓
0.14834      0.15675      0.022181      0.17104      0.12334      0.59238 ✓
0.21584      0.22942      -0.026881      0.031916      0.17104      0.44969 ✓
0.35516      5.9561      16.176      18.389      2.6597      32.432 ✓
9.1667      2.1466      31.924      9.3611      0.52778      0.83333 ✓
47.472      81.639      74.528      66.833      28.083      0.083333 ✓
0      0      0      0      0      0      0.27778 ✓
61.444      215.61      22.5      0.16667      0      0 ✓
0      0      0.19444      59.972      114.86      109.5 ✓
14.972      0.33333      0.16667
    1.2914      0.76802      0.11336      1.0077      0.013591      0.98349 ✓
0.087772      0.52338      1.0144      -0.64654      0.528      0.12618 ✓
0.633      3.2077      0.93499      0.98349      1.0826      0.99523 ✓
-0.15491      -0.75384      0.12931      -0.37421      0.01717      -0.34577 ✓
0.10569      0.59893      0.39619      -0.72174      0.18515      -0.69583 ✓
-0.45939      -0.34577      -0.17929      -0.31661      0.50155      -0.18053 ✓
0.16864      0.1772      0.028782      0.16214      0.14537      0.68208 ✓
0.2455      0.28944      0.039796      0.032693      0.16214      0.48203 ✓
0.40903      6.1164      16.223      18.444      2.9389      32.669 ✓
9.25      2.3259      32.957      9.1111      0.47222      0.055556 ✓
0.16667      19.917      219.36      59.611      0.41667      0 ✓
0      0      0      0.41667      18.111      175.36      106.11 ✓
0      0      0      0      0      0.055556      0.16667 ✓
0.80556      2.5      30.5      132.72      96.75      36.5 ✓
0
    1.3395      0.78      0.12741      1.0297      0.017027      1.0015 ✓
0.10011      0.55948      1.038      -0.68104      0.58602      0.1521 ✓
0.63034      3.0358      0.94406      1.0015      1.1385      1.0219 ✓
-0.084476      -0.73484      0.14963      -0.341      0.022823      -0.30624 ✓
0.12659      0.65036      0.37257      -0.7438      0.24069      -0.55158 ✓
-0.45704      -0.30624      -0.11894      -0.22418      0.50899      -0.17643 ✓
0.16987      0.17465      0.029209      0.15257      0.14769      0.68542 ✓
0.24407      0.29423      0.14352      0.028278      0.15257      0.48876 ✓
0.4032      6.1899      16.826      17.833      2.4251      32.635 ✓
9.1667      2.0977      32.118      9.2778      0.5      0.027778 ✓
0.11111      18.944      205.06      69.944      5.4167      0 ✓
0      0      0      0.055556      19.833      133.25      146.86 ✓

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0          0          0          0          0          0          0
0.36111    2.3333    42.444    127.03    90.056    37.75 ✓
0.027778    0
    1.2172    0.70893    0.11302    0.97056    0.013592    0.96786 ✓
0.092032    0.50826    0.9775    -0.13886    0.37705    0.16276 ✓
0.072482    2.5076    0.88793    0.96786    1.1152    1.0211 ✓
-0.012906    -0.38267    0.080612    -0.16467    0.006933    -0.14855 ✓
0.064809    0.36976    0.18412    -0.26933    0.10601    -0.61312 ✓
-0.21229    -0.14855    -0.030243    -0.14117    0.57879    0.042502 ✓
0.13274    0.31802    0.017694    0.32058    0.11392    0.53629 ✓
0.3447    0.23002    -0.094552    0.20526    0.32058    0.55274 ✓
0.48525    5.7669    17.637    16.861    2.9041    33.316 ✓
9.2222    1.9679    34.868    8.8611    0.47222    0.055556 ✓
0.22222    70.111    184.25    44.778    0.11111    0 ✓
0          0          0          0          0          23.333    275.19 ✓
1.4722    0          0          0          0          0 ✓
0          0          0          0.97222    71.111    129.92 ✓
97.222    0.77778    0
    1.3177    0.67269    0.13137    1.0229    0.019042    1.0271 ✓
0.10365    0.64497    1.0323    -0.25496    0.17915    0.16782 ✓
-0.10925    3.0134    0.9418    1.0271    1.1505    1.0432 ✓
0.10246    -0.44811    0.11752    -0.13543    0.014331    -0.11009 ✓
0.095445    0.55057    0.17988    -0.45913    0.15901    -0.55523 ✓
-0.20997    -0.11009    0.066403    -0.073714    0.62025    -0.016728 ✓
0.14763    0.3142    0.02246    0.32584    0.12448    0.63697 ✓
0.34754    0.23482    -0.18183    0.19695    0.32584    0.5867 ✓
0.48315    6.0532    16.655    17.833    2.8641    31.876 ✓
9.5278    2.4114    32.508    9.4722    0.97222    1.0833 ✓
0.94444    36.111    175.83    81.75    3.3056    0 ✓
0          0          0          0          0.16667    35.444    238.42 ✓
25.944    0.027778    0          0          0          0 ✓
0          0          0.66667    1.8611    75.778    122.53 ✓
95.083    2.6944    0.75
    1.2374    0.63704    0.14983    0.94939    0.022937    0.94354 ✓
0.12811    0.60039    0.96139    -0.36282    0.57788    0.2521 ✓
0.005171    2.0832    0.82475    0.94354    1.1589    1.0935 ✓
-0.10954    -0.44453    0.072425    -0.26013    0.0053134    -0.24593 ✓
0.058218    0.33499    0.27012    -0.47494    0.095096    -0.47613 ✓
-0.30489    -0.24593    -0.13258    -0.2148    0.47214    0.12883 ✓
0.075023    0.31222    0.0058576    0.30882    0.061871    0.34331 ✓
0.32144    0.11489    -0.15144    0.25828    0.30882    0.45362 ✓
0.40429    5.75    16.95    17.556    2.8817    33.076 ✓
9.25    2.6345    32.969    9.2778    0.5    0.055556 ✓
2.2778    109.44    126.28    61.444    0          0 ✓
0          0          0          0          0.083333    80.222    219.47 ✓
0.22222    0          0          0          0          0 ✓
0          0          0          0.86111    17.778    240 ✓
41.361    0          0
    1.2325    0.63243    0.15292    0.94616    0.02387    0.93947 ✓

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0.13106      0.60003      0.95867      -0.34922      0.57818      0.26017 ✓
-0.0055268    2.0593      0.81918      0.93947      1.1623      1.0983 ✓
-0.098753    -0.41741    0.068973    -0.23958    0.0048204    -0.22435 ✓
0.055814     0.31865     0.24945     -0.54584     0.091849     -0.52293 ✓
-0.2817      -0.22435    -0.12513    -0.19607     0.50894      0.13598 ✓
0.081762     0.33398     0.0069224    0.3299      0.06749      0.37296 ✓
0.34421      0.12671     -0.13829     0.27357     0.3299      0.49177 ✓
0.43524      5.7496      16.977      17.5        2.8621      32.795 ✓
9.3611       2.6518      33.35       9.1389      0.47222      0.055556 ✓
2.2222       112.53      122.06      62.667      0            0 ✓
0            0          0          0          0          59.167      240.69 ✓
0.13889      0          0          0          0          0            0 ✓
0            0          0          1.1389     17.667      208.17 ✓
72.667      0.36111     0          0          0          0            0
      1.5967      0.6319      0.22747      1.0585      0.052293      1.0281 ✓
0.18117      0.96477      1.0829      -0.3538     0.27344      0.2833 ✓
0.56365      2.6995      0.89042      1.0281      1.299        1.1201 ✓
0.021568     -0.63308     0.13614     -0.26233     0.018701     -0.24359 ✓
0.10848      0.65465      0.2957      -0.57306     0.17689      -0.54508 ✓
-0.33928     -0.24359     -0.017579    -0.20246     0.29081      -0.27825 ✓
0.13348      0.026158     0.018029     0.024513     0.11783      0.56905 ✓
0.13651      0.23478     -0.035782    -0.092218     0.024513     0.2651 ✓
0.18726      6.1946      16.731      17.917      2.866        29.652 ✓
10.306       2.1589      32.646      9.4167      0.5          0.083333 ✓
2.5556       65.722      121.97      62.139      38.333       8.6944 ✓
0            0          0          0          3.3333      97.167      197.25 ✓
2.25         0          0          0          0            0 ✓
0.11111      0.86111     4          135.42      130.14      29.194 ✓
0.27778      0          0          0          0            0
      1.5967      0.6319      0.22747      1.0585      0.052293      1.0281 ✓
0.18117      0.96477      1.0829      -0.3538     0.27344      0.2833 ✓
0.56365      2.6995      0.89042      1.0281      1.299        1.1201 ✓
0.021568     -0.63308     0.13614     -0.26233     0.018701     -0.24359 ✓
0.10848      0.65465      0.2957      -0.57306     0.17689      -0.54508 ✓
-0.33928     -0.24359     -0.017579    -0.20246     0.29081      -0.27825 ✓
0.13348      0.026158     0.018029     0.024513     0.11783      0.56905 ✓
0.13651      0.23478     -0.035782    -0.092218     0.024513     0.2651 ✓
0.18726      6.1946      16.731      17.917      2.866        29.652 ✓
10.306       2.1589      32.646      9.4167      0.5          0.083333 ✓
2.5556       65.722      121.97      62.139      38.333       8.6944 ✓
0            0          0          0          3.3333      97.167      197.25 ✓
2.25         0          0          0          0            0 ✓
0.11111      0.86111     4          135.42      130.14      29.194 ✓
0.27778      0          0          0          0            0
      1.597       0.61005     0.24898      1.0637      0.062971      1.0397 ✓
0.21125      0.987       1.0929      -0.57655     0.12541      0.40045 ✓
0.27877      2.1141      0.85282      1.0397      1.4052      1.2446 ✓
-0.029649    -0.46687     0.10591     -0.24253     0.011379     -0.24495 ✓
0.091358     0.43723     0.26481     -0.6368     0.17901      -0.017331 ✓

```

-0.33118	-0.24495	-0.048224	-0.2613	0.26077	-0.30254 ✓
0.14198	-0.0025355	0.020599	-0.035129	0.12534	0.56331 ✓
0.15276	0.2531	0.075952	-0.11915	-0.035129	0.24182 ✓
0.15278	6.2183	16.284	18.25	2.0469	32.506 ✓
9.3611	2.0002	32.741	9.1389	0.47222	0.083333 ✓
6.0556	78.361	85.917	74.222	46.861	8.0278 ✓
0	0	0	0	0.13889	100.69 198.5 ✓
0.66667	0	0	0	0	0 ✓
0.27778	1.3611	20.389	141.47	103	33.5 ✓
0	0	0			
1.6227	0.60305	0.2561	1.0578	0.066249	1.0392 ✓
0.21607	1.0196	1.0886	-0.58714	0.074573	0.40558 ✓
0.28971	2.1847	0.83957	1.0392	1.39	1.2412 ✓
-0.035252	-0.47869	0.10941	-0.24882	0.012029	-0.24426 ✓
0.094635	0.44344	0.27186	-0.6042	0.18797	-0.10377 ✓
-0.34359	-0.24426	-0.054979	-0.25027	0.22548	-0.31922 ✓
0.13632	-0.021103	0.018723	-0.056864	0.1205	0.54469 ✓
0.13977	0.24285	0.05443	-0.13114	-0.056864	0.20943 ✓
0.13403	6.194	16.198	18.389	1.946	31.474 ✓
9.6667	2.0129	32.086	9.3056	0.5	0.055556 ✓
5.6111	83.917	81.472	77.639	39.472	11.333 ✓
0	0	0	0	0	107.5 192.08 ✓
0.41667	0	0	0	0	0 ✓
0	1.7222	16.194	153.53	120.89	7.6667 ✓
0	0	0			
1.5315	0.70892	0.1905	1.0882	0.037187	1.0767 ✓
0.15166	0.82261	1.1051	-0.35995	0.16112	0.24589 ✓
0.26606	2.6154	0.9558	1.0767	1.3206	1.1603 ✓
-0.0099548	-0.57378	0.13294	-0.24899	0.01835	-0.24406 ✓
0.11251	0.56383	0.28285	-0.60307	0.20361	-0.32301 ✓
-0.34121	-0.24406	-0.025329	-0.27524	0.27348	-0.28676 ✓
0.13855	0.014915	0.019711	0.00042389	0.12336	0.56023 ✓
0.14099	0.24926	-0.051697	-0.10192	0.00042389	0.24644 ✓
0.16777	6.2977	17.051	17.333	2.2415	33.244 ✓
9.1944	2.0281	32.492	9.2222	0.5	0.055556 ✓
0.22222	43	120.83	95.611	35.639	4.1389 ✓
0	0	0	0	1.8889	102.06 193.42 ✓
2.6389	0	0	0	0	0 ✓
0	1.5556	5.1667	142.92	120.56	29.694 ✓
0.11111	0	0			
1.6036	0.66821	0.21026	1.1045	0.04522	1.094 ✓
0.16802	0.93541	1.1247	-0.2793	0.16784	0.27819 ✓
0.2464	2.6326	0.95631	1.094	1.3542	1.1842 ✓
0.030761	-0.63344	0.15377	-0.24279	0.024429	-0.22908 ✓
0.12903	0.6642	0.28791	-0.60606	0.23278	-0.38592 ✓
-0.34842	-0.22908	0.015206	-0.25995	0.31671	-0.29964 ✓
0.14844	0.028169	0.022411	0.01422	0.13171	0.61634 ✓
0.15209	0.26387	-0.043112	-0.098138	0.01422	0.28861 ✓
0.18256	6.4167	16.963	17.528	2.3401	32.924 ✓

9.3611	2.1477	32.927	9.2222	0.47222	0.11111 ✓
0.77778	43.361	108.94	97.556	39.139	9.6389 ✓
0	0	0	0.16667	5.0833	101.47
8.0278	0	0	0	0	0 ✓
0.44444	1.3333	4.2778	140.08	107.58	46.111 ✓
0.16667	0	0			
1.5231	0.44531	0.28657	0.99087	0.083315	0.99078 ✓
0.24997	1.0778	1.0322	-0.065946	0.46221	0.50807 ✓
-0.0033885	1.81	0.736	0.99078	1.3463	1.257 ✓
0.2426	-0.56286	0.20883	-0.12986	0.045225	-0.10332 ✓
0.18081	0.80546	0.24728	-0.62867	0.36176	-0.2063 ✓
-0.31171	-0.10332	0.21317	0.0651	0.61214	-0.0064542 ✓
0.12776	0.37581	0.01681	0.39477	0.099062	0.61859 ✓
0.39772	0.15971	-0.67336	0.29892	0.39477	0.59898 ✓
0.44537	6.2118	12.066	24.639	1.9156	24.444 ✓
12.25	3.6781	24.892	11.917	0.5	2.5278 ✓
44.722	68.667	63.472	71.194	48.278	0.63889 ✓
0	0	0	0.055556	3.75	70.667
99.639	0.72222	0	0	0	0 ✓
0	0	0.72222	4.3056	19.472	131.78 ✓
139.61	4.1111	0			
1.5391	0.65715	0.1691	1.2234	0.030337	1.2559 ✓
0.13273	0.88195	1.236	0.33755	0.0031977	0.22196 ✓
-0.87793	3.8356	1.1247	1.2559	1.4144	1.3384 ✓
0.39578	-1.0462	0.39781	-0.24529	0.15974	-0.1737 ✓
0.34931	1.442	0.46714	-0.70182	0.72172	-0.2948 ✓
-0.60884	-0.1737	0.34603	0.12563	0.63862	-0.11015 ✓
0.1486	0.32292	0.022781	0.30119	0.1149	0.74876 ✓
0.35659	0.19358	-0.20928	0.23468	0.30119	0.61902 ✓
0.37349	7.498	18.013	17.028	1.7928	24.746 ✓
12.167	3.8679	24.659	12.139	0.52778	0.33333 ✓
2.2778	11	48.222	135.58	100.42	1.6111 ✓
0.027778	0	0.19444	15.444	60.139	50.5 ✓
64.972	98.194	10.333	0.22222	0	0 ✓
0	0	0.13889	2.9444	3.4444	39.194
78.361	7.6111	0			168.31 ✓

## Variance Statistics:

Feature_1	Feature_2	Feature_3	Feature_4	Feature_5	Feature_6 ✓
Feature_7	Feature_8	Feature_9	Feature_10	Feature_11	Feature_12 ✓
Feature_13	Feature_14	Feature_15	Feature_16	Feature_17	Feature_18 ✓
Feature_19	Feature_20	Feature_21	Feature_22	Feature_23	Feature_24 ✓
Feature_25	Feature_26	Feature_27	Feature_28	Feature_29	Feature_30 ✓
Feature_31	Feature_32	Feature_33	Feature_34	Feature_35	Feature_36 ✓
Feature_37	Feature_38	Feature_39	Feature_40	Feature_41	Feature_42 ✓
Feature_43	Feature_44	Feature_45	Feature_46	Feature_47	Feature_48 ✓
Feature_49	Feature_50	Feature_51	Feature_52	Feature_53	Feature_54 ✓
Feature_55	Feature_56	Feature_57	Feature_58	Feature_59	Feature_60 ✓
Feature_61	Feature_62	Feature_63	Feature_64	Feature_65	Feature_66 ✓

[illegible]

```
0
0
0.0023517 0.013753 0.00032768 0.00066498 5.3229e-05 0.00053113 ✎
7.7065e-05 0.013497 0.00056551 0.0026935 0.0036918 0.00070056 ✎
0.19983 0.77197 0.00042816 0.00053113 0.0027286 0.00063875 ✎
0.0034382 0.0015782 0.00030082 0.00036118 2.7513e-05 0.00042992 ✎
0.0003061 0.0051544 0.00047226 0.010092 0.0017766 0.031723 ✎
0.0005212 0.00042992 0.0021327 0.0078084 0.00081441 0.0072116 ✎
0.00014058 0.00044949 1.0755e-05 0.00073342 0.00011838 0.0094144 ✎
0.00017993 0.00061083 0.013977 0.00039744 0.00073342 0.00043708 ✎
0.0029621 0.020542 0.26758 0.47857 0.19139 1.1897 ✎
0.35873 0.11746 1.1708 0.31349 9 0.027778 ✎
0.75159 207.13 160.03 57.435 54.885 0 ✎
0 0 0 0 0 0 0 ✎
158.06 439.44 250.96 0 0 0 ✎
0 0.44444 14.828 219.12 501.63 484.91 0 ✎
0
0
0.0025535 0.014022 0.00051591 0.00035323 0.00010421 0.00046013 ✎
0.00020112 0.018049 0.00030193 0.0049708 0.014519 0.0012061 ✎
0.13446 0.44531 0.00059476 0.00046013 0.0039293 0.00094823 ✎
0.0043885 0.0013562 0.00015084 0.00014204 2.0466e-05 0.00047782 ✎
0.00018095 0.0072096 0.00015606 0.02845 0.00087422 0.01468 ✎
0.00023544 0.00047782 0.00081848 0.023909 0.0026101 0.028839 ✎
0.00021554 0.00048138 1.7872e-05 0.00071435 0.00012396 0.033439 ✎
0.00023861 0.00078888 0.22948 9.5109e-05 0.00071435 0.0012725 ✎
0.00084517 0.0090551 0.29833 0.67302 0.096473 1.1697 ✎
0.30159 2.4987 1.8202 0.44683 8.0278 0.11111 ✎
1.4944 132.55 237.91 82.066 49.45 0.69444 ✎
0 0 0 0 0 0 0 ✎
72.421 355.29 227.96 0.8 0 0 ✎
3.2571 12.085 76.009 169.53 150.68 178 ✎
0.11111 0 0
0.0063037 0.0099544 0.0015629 0.0001815 0.00043941 0.00023619 ✎
0.0011559 0.025964 0.00033386 0.0030063 0.0034261 0.0054129 ✎
0.01892 0.11792 0.0012371 0.00023619 0.0027875 0.0022632 ✎
0.0016165 0.0029967 0.00033486 0.00027013 1.8002e-05 0.00029476 ✎
0.00024018 0.0069726 0.0002293 0.0060124 0.00091587 0.041823 ✎
0.0006929 0.00029476 0.0010566 0.00038077 0.0024809 0.00038669 ✎
0.00015325 0.00062781 1.0311e-05 0.00093857 7.7105e-05 0.0034694 ✎
0.00071203 0.00017583 0.030011 0.00079451 0.00093857 0.0022847 ✎
0.003591 0.011268 0.45755 0.75873 0.12062 1.8175 ✎
0.32063 0.025078 1.5206 0.30159 9 3.7802 ✎
268.64 258.5 175.78 86.561 216.58 0.25714 ✎
0 0 0 0 0 0 0 ✎
651.58 777.34 96.083 0 0 0 ✎
0 0 0 59.952 754.12 245.33 219.87 ✎
0
0
0.0015102 0.011073 0.00054911 0.00035569 0.00016013 0.00041323 ✎
0.00039193 0.012166 0.00021142 0.0099593 0.011713 0.0018511 ✎
0.024202 0.074427 0.00096752 0.00041323 0.001666 0.0024053 ✎
```



```

0.0055311      0.0050185      0.00033137      0.000229      2.9351e-05      0.00022537 ✓
0.00019099      0.017175      0.00032201      0.012138      0.00077337      0.03969 ✓
0.00022568      0.00022537      0.0029758      0.00062819      0.0051172      0.0010693 ✓
0.00017999      0.00034834      2e-05      0.00035506      9.2452e-05      0.0061813 ✓
0.00044165      0.00041469      0.029949      0.00034406      0.00035506      0.003199 ✓
0.0046449      0.0037854      0.12664      0.30159      0.072575      1.0025 ✓
0.14286      0.067167      1.2795      0.29444      8.9992      14.886 ✓
111.86      61.209      145.97      43.514      44.936      0.25 ✓
0      0      0      0      0      0      1.3492 ✓
43.683      138.64      114.77      1      0      0      0 ✓
0      0      1.3611      63.228      164.98      172.6      80.085 ✓
4      1
      0.0010162      0.022206      0.00076232      0.00020809      0.00010009      0.00017885 ✓
0.00017493      0.023148      0.00012625      0.0085523      0.016654      0.00040087 ✓
0.4115      1.0886      0.0001614      0.00017885      0.0013546      0.00012488 ✓
0.0016255      0.014622      0.00046169      0.00037231      3.2447e-05      0.00037179 ✓
0.00029972      0.016076      0.00056034      0.031717      0.0011174      0.085297 ✓
0.0010749      0.00037179      0.00045016      0.003042      0.001278      0.042793 ✓
0.0003539      0.00051759      4.6971e-05      0.00063207      0.00011944      0.039534 ✓
0.00032903      0.00058408      0.21413      0.00022574      0.00063207      0.00090927 ✓
0.0030169      0.0060798      0.71097      0.99683      0.41411      1.5456 ✓
0.30714      1.5019      2.1113      0.15873      8.0278      0.11111 ✓
0.54286      129.11      179.84      61.444      1.6214      0 ✓
0      0      0      2.0214      213.87      396.75      217.02 ✓
0      0      0      0      0      0.11111      1 ✓
3.1897      18.086      287.17      152.03      105.91      144.54 ✓
0      0
      0.0011188      0.021769      0.00081737      0.0002809      0.00011848      0.00054278 ✓
0.00017478      0.022195      0.0002717      0.0060544      0.007728      0.00039766 ✓
0.43161      1.4201      0.00052473      0.00054278      0.0031421      0.00081117 ✓
0.0016798      0.0084839      0.00044545      0.00065064      4.0183e-05      0.00061638 ✓
0.00034475      0.010171      0.00087558      0.0165      0.0015417      0.056355 ✓
0.0017464      0.00061638      0.00078078      0.0016697      0.0026597      0.019542 ✓
0.00036183      0.00052989      4.3396e-05      0.00048307      0.00034054      0.018421 ✓
0.00057446      0.0025114      0.075098      0.00035495      0.00048307      0.0018198 ✓
0.0093318      0.0083589      1.2768      1.5714      0.19979      2.0525 ✓
0.25714      0.33577      1.2265      0.26349      9      0.027778 ✓
0.21587      197.65      314.17      187.14      30.65      0 ✓
0      0      0      0.11111      175.11      366.71      346.81 ✓
0      0      0      0      0      0      0 ✓
1.4944      16.571      315.74      533.4      210.97      392.31 ✓
0.027778      0
      0.0036015      0.015979      0.0008433      0.00068637      0.00011297      0.00074022 ✓
0.00025557      0.020693      0.00072211      0.037437      0.018092      0.00059439 ✓
0.22948      1.3043      0.00089118      0.00074022      0.0011389      0.00071162 ✓
0.0032674      0.0041081      0.000447      9.7141e-05      1.5196e-05      0.00011487 ✓
0.00029094      0.0098525      0.00022692      0.04241      0.00078881      0.11131 ✓
0.00033879      0.00011487      0.0012339      0.00079115      0.0021587      0.0045667 ✓
7.7311e-05      0.0001486      5.5744e-06      0.00016397      4.9964e-05      0.0097082 ✓

```

0.00010471	0.00022503	0.021377	0.0002208	0.00016397	0.00084563 ✓
0.00065844	0.020461	0.80726	0.86587	0.66135	4.0172 ✓
0.40635	0.11182	5.7251	0.40873	8.0278	0.11111 ✓
0.63492	585.13	307.51	452.92	0.44444	0 ✓
0	0	0	0	0	355.31 391.53 ✓
13.342	0	0	0	0	0 ✓
0	0	0	5.3992	93.702	78.65 81.663 ✓
2.5206	0				
0.0046322	0.033136	0.0018332	0.0019079	0.00030137	0.0015194 ✓
0.00090401	0.03326	0.001516	0.021612	0.042383	0.00092908 ✓
0.29329	1.7456	0.0013353	0.0015194	0.0020926	0.0038732 ✓
0.0043401	0.0070901	0.00053428	0.00023796	3.478e-05	0.00030176 ✓
0.00043201	0.01375	0.00051348	0.041482	0.0017676	0.090564 ✓
0.00092499	0.00030176	0.0018194	0.0024805	0.022563	0.012895 ✓
0.00068381	0.0012888	9.6002e-05	0.0011242	0.0003482	0.034377 ✓
0.0016194	0.0008426	0.14503	0.00061648	0.0011242	0.013877 ✓
0.0019275	0.030643	0.2558	0.48571	0.31703	2.335 ✓
0.31349	0.92941	3.1174	0.31349	16.542	28.879 ✓
7.4825	121.82	784.43	895.51	26.733	0 ✓
0	0	0	0	0.37143	276.77 839.56 ✓
279.65	0.027778	0	0	0	0 ✓
0	0	5.0857	13.209	271.32	364.03 360.76 ✓
25.533	11.679				
0.0004462	0.013411	0.00050179	0.00020128	7.0674e-05	0.00025698 ✓
0.0001878	0.013235	0.00014724	0.015302	0.022674	0.0012663 ✓
0.15581	1.2227	0.00026745	0.00025698	0.00079019	0.0021024 ✓
0.0028489	0.0014827	6.9961e-05	8.8267e-05	1.7063e-06	8.7104e-05 ✓
2.9337e-05	0.0038352	8.8172e-05	0.028262	6.2536e-05	0.17821 ✓
0.00011945	8.7104e-05	0.0006462	0.00014765	0.0039059	0.0095138 ✓
0.00023561	0.0014465	6.512e-06	0.0014986	8.9782e-05	0.015815 ✓
0.0014394	0.00015917	0.21054	0.0011019	0.0014986	0.0034546 ✓
0.0024643	0.00285	0.089962	0.31111	0.34376	3.0707 ✓
0.42143	1.315	2.8263	0.32063	9	0.11111 ✓
10.263	73.797	327.12	180.6	0	0 ✓
0	0	0	0	0.25	109.55 109.51 ✓
1.3778	0	0	0	0	0 ✓
0	0	0	4.3516	270.81	1634.9 2308.4 ✓
0	0				
0.0006727	0.012854	0.00050104	0.00016217	7.0284e-05	0.00023916 ✓
0.00021111	0.013728	0.00013307	0.030831	0.023122	0.0015179 ✓
0.1506	1.2209	0.00033381	0.00023916	0.00064045	0.002002 ✓
0.0022089	0.00083014	6.4922e-05	0.00010891	1.2591e-06	0.0002146 ✓
2.8777e-05	0.0035745	8.5633e-05	0.021114	5.1216e-05	0.18408 ✓
0.00015029	0.0002146	0.00057988	0.00026419	0.0059131	0.012423 ✓
0.00024414	0.0021391	7.3876e-06	0.0017426	0.0001035	0.014981 ✓
0.0020977	0.00024178	0.19424	0.0016123	0.0017426	0.0049578 ✓
0.0039016	0.002651	0.17606	0.37143	0.35507	10.95 ✓
0.98016	1.1188	2.9517	0.2373	8.0278	0.11111 ✓
8.9206	96.713	335.83	193.83	0	0 ✓

```
0          0          0          0          0          0          115.17          114.68 ↵
0.69444          0          0          0          0          0          0          0 ↵
0          0          0          0          6.123          484.86          1159.5          2623.4 ↵
1.2087          0
    0.0014066    0.017605    0.0005675    0.00057171    0.00015622    0.00023634 ↵
0.00030402    0.020866    0.00043578    0.012759    0.01067    0.0021955 ↵
0.098602    0.20101    0.0013149    0.00023634    0.0047383    0.0011616 ↵
0.0057387    0.0030525    0.00017086    0.00021225    1.2631e-05    0.00023857 ↵
0.00010693    0.010454    0.00023067    0.033579    0.0004354    0.046221 ↵
0.00048204    0.00023857    0.0020153    0.00066969    0.0033345    0.019924 ↵
0.00021721    0.00020155    1.6804e-05    0.00042025    0.00013877    0.026906 ↵
0.00021955    0.00071311    0.088915    0.00024156    0.00042025    0.001017 ↵
0.00070999    0.014189    0.19186    0.36429    0.05655    6.3448 ↵
0.90397    0.98788    1.4722    0.30714    9    0.13571 ↵
19.625    246.38    468.54    90.237    28.286    30.218 ↵
0          0          0          0          12.8    152.71    198.54 ↵
10.593          0          0          0          0          0 ↵
0.27302    3.2087    24.743    119.28    204.92    205.25 ↵
1.4063          0          0
    0.0014066    0.017605    0.0005675    0.00057171    0.00015622    0.00023634 ↵
0.00030402    0.020866    0.00043578    0.012759    0.01067    0.0021955 ↵
0.098602    0.20101    0.0013149    0.00023634    0.0047383    0.0011616 ↵
0.0057387    0.0030525    0.00017086    0.00021225    1.2631e-05    0.00023857 ↵
0.00010693    0.010454    0.00023067    0.033579    0.0004354    0.046221 ↵
0.00048204    0.00023857    0.0020153    0.00066969    0.0033345    0.019924 ↵
0.00021721    0.00020155    1.6804e-05    0.00042025    0.00013877    0.026906 ↵
0.00021955    0.00071311    0.088915    0.00024156    0.00042025    0.001017 ↵
0.00070999    0.014189    0.19186    0.36429    0.05655    6.3448 ↵
0.90397    0.98788    1.4722    0.30714    9    0.13571 ↵
19.625    246.38    468.54    90.237    28.286    30.218 ↵
0          0          0          0          12.8    152.71    198.54 ↵
10.593          0          0          0          0          0 ↵
0.27302    3.2087    24.743    119.28    204.92    205.25 ↵
1.4063          0          0
    0.0021496    0.015073    0.0010101    0.00098325    0.000313    0.0011062 ↵
0.0008137    0.021695    0.00060798    0.0054695    0.0081397    0.0052066 ↵
0.025382    0.09531    0.0029551    0.0011062    0.0030442    0.0052324 ↵
0.0024381    0.0039658    0.00016683    0.00039238    7.0975e-06    0.00052441 ↵
0.00014961    0.0064188    0.00043284    0.023474    0.00099631    0.053249 ↵
0.00080124    0.00052441    0.0011606    0.0015632    0.0050258    0.022134 ↵
0.00045465    0.0034224    3.9024e-05    0.004047    0.0002729    0.026059 ↵
0.00054474    0.0010855    0.096285    0.0029029    0.004047    0.004914 ↵
0.0095524    0.018601    0.25546    0.59286    0.21392    2.4668 ↵
0.35159    0.58907    1.6948    0.2373    8.0278    0.25 ↵
85.883    194.75    371.51    98.292    65.037    39.913 ↵
0          0          0          0          0.69444    574.16    561.97 ↵
3.6571          0          0          0          0          0 ↵
1.4063    6.8659    607.27    440.66    638.74    1497.6 ↵
0          0          0
```

```

    0.0016389    0.01238    0.0006796    0.00058787    0.00021219    0.00060482 ✓
0.0004935    0.017269    0.00043914    0.0033356    0.0051389    0.0029189 ✓
0.035685    0.1248    0.00168    0.00060482    0.0021124    0.0026314 ✓
0.0020507    0.00098617    5.9322e-05    0.00013934    2.8221e-06    0.00037874 ✓
5.6171e-05    0.0033014    0.00012892    0.023584    0.00045399    0.035543 ✓
0.00028099    0.00037874    0.00073005    0.0017286    0.0011711    0.015501 ✓
0.00014319    0.00063606    1.0924e-05    0.00089858    7.2041e-05    0.015837 ✓
0.0001937    0.00039119    0.084289    0.00069875    0.00089858    0.00075477 ✓
0.0042873    0.012371    0.3075    0.64444    0.075106    1.4342 ✓
0.34286    0.45535    1.1261    0.2754    9    0.11111 ✓
31.216    140.88    235.46    55.78    25.856    34.971 ✓
0    0    0    0    0    191    189.05 ✓
1.6214    0    0    0    0    0    0 ✓
0    8.0921    188.9    78.199    167.42    64.114    0 ✓
0    0

    0.0052985    0.01688    0.00092269    0.0010187    0.00017836    0.0010262 ✓
0.00039912    0.024048    0.0010583    0.011499    0.0038769    0.0015246 ✓
0.12037    0.48918    0.0010667    0.0010262    0.0034792    0.0029511 ✓
0.0019243    0.0069144    0.00069617    0.00020924    5.6185e-05    0.00046243 ✓
0.00054705    0.013758    0.0004988    0.061713    0.0021792    0.020292 ✓
0.0010325    0.00046243    0.0015415    0.0025042    0.0061748    0.019815 ✓
0.00052864    0.00064445    4.3041e-05    0.00037609    0.00034157    0.034888 ✓
0.00063269    0.0014873    0.09513    0.00018986    0.00037609    0.0040988 ✓
0.0049235    0.038493    0.57316    0.91429    0.055414    3.0561 ✓
0.44683    0.76212    5.6344    0.63492    9    0.11111 ✓
0.69206    51.543    621.57    215.84    57.437    41.094 ✓
0    0    0    0    12.044    295.14    495.34 ✓
26.866    0    0    0    0    0    0 ✓
0    10.483    32.543    90.593    1095.2    1276.6    0.44444 ✓
0    0

    0.0067706    0.019081    0.0010405    0.00086758    0.00021052    0.00095362 ✓
0.00054464    0.0289    0.0009101    0.014885    0.0058848    0.0023503 ✓
0.11421    0.45929    0.0009772    0.00095362    0.0034277    0.0026612 ✓
0.0015952    0.014646    0.0008058    0.00073227    8.0347e-05    0.0011971 ✓
0.00048139    0.022363    0.0011454    0.046308    0.0015135    0.023585 ✓
0.0015961    0.0011971    0.0014394    0.0043968    0.003125    0.03168 ✓
0.00038641    0.00039681    3.576e-05    0.00040935    0.0002066    0.04446 ✓
0.00039584    0.0010388    0.12127    0.00014637    0.00040935    0.001985 ✓
0.0063969    0.031311    0.40145    0.59921    0.11226    4.7972 ✓
0.52302    1.4105    4.3481    0.34921    8.0278    0.27302 ✓
2.9778    69.78    419.14    232.37    68.294    70.409 ✓
0    0    0    1    36.593    367.91    535.79 ✓
63.399    0    0    0    0    0    0 ✓
1.6825    7.2    31.635    101.85    537.68    574.33 ✓
0.48571    0    0

    0.0016839    0.010916    0.0012239    0.0018036    0.00041767    0.001556 ✓
0.00097036    0.013077    0.0011507    0.0043335    0.01897    0.0051574 ✓
0.0088321    0.037008    0.0051157    0.001556    0.0010673    0.0037847 ✓
0.0041471    0.015454    0.0016597    0.00090519    0.00032364    0.00091595 ✓

```

Standard Deviation Statistics:

Feature_1	Feature_2	Feature_3	Feature_4	Feature_5	Feature_6	↙
Feature_7	Feature_8	Feature_9	Feature_10	Feature_11	Feature_12	↙
Feature_13	Feature_14	Feature_15	Feature_16	Feature_17	Feature_18	↙
Feature_19	Feature_20	Feature_21	Feature_22	Feature_23	Feature_24	↙
Feature_25	Feature_26	Feature_27	Feature_28	Feature_29	Feature_30	↙
Feature_31	Feature_32	Feature_33	Feature_34	Feature_35	Feature_36	↙
Feature_37	Feature_38	Feature_39	Feature_40	Feature_41	Feature_42	↙
Feature_43	Feature_44	Feature_45	Feature_46	Feature_47	Feature_48	↙
Feature_49	Feature_50	Feature_51	Feature_52	Feature_53	Feature_54	↙
Feature_55	Feature_56	Feature_57	Feature_58	Feature_59	Feature_60	↙
Feature_61	Feature_62	Feature_63	Feature_64	Feature_65	Feature_66	↙
Feature_67	Feature_68	Feature_69	Feature_70	Feature_71	Feature_72	↙
Feature_73	Feature_74	Feature_75	Feature_76	Feature_77	Feature_78	↙
Feature_79	Feature_80	Feature_81	Feature_82	Feature_83	Feature_84	↙
Feature_85	Feature_86	Feature_87	Feature_88			
						↙
						↙
						↙
						↙
						↙

[illegible]

0.59894	0.34272	1.082	0.5599	3	0.16667	↵
0.86694	14.392	12.65	7.5786	7.4084	0	↵
0	0	0	0	0	0	0 ↵
12.572	20.963	15.842	0	0	0	↵
0	0.66667	3.8507	14.803	22.397	22.021	0 ↵
0	0					
0.050532	0.11841	0.022714	0.018794	0.010209	0.021451	↵
0.014182	0.13435	0.017376	0.070504	0.1205	0.034729	↵
0.36669	0.66731	0.024388	0.021451	0.062684	0.030793	↵
0.066246	0.036827	0.012282	0.011918	0.004524	0.021859	↵
0.013452	0.084909	0.012492	0.16867	0.029567	0.12116	↵
0.015344	0.021859	0.028609	0.15463	0.051089	0.16982	↵
0.014681	0.02194	0.0042275	0.026727	0.011134	0.18286	↵
0.015447	0.028087	0.47904	0.0097524	0.026727	0.035673	↵
0.029072	0.095158	0.54619	0.82038	0.3106	1.0815	↵
0.54917	1.5807	1.3491	0.66845	2.8333	0.33333	↵
1.2225	11.513	15.424	9.059	7.0321	0.83333	↵
0	0	0	0	0	0	0 ↵
8.5101	18.849	15.098	0.89443	0	0	↵
1.8048	3.4763	8.7183	13.02	12.275	13.342	↵
0.33333	0	0				
0.079396	0.099772	0.039533	0.013472	0.020962	0.015368	↵
0.033999	0.16113	0.018272	0.05483	0.058533	0.073573	↵
0.13755	0.34339	0.035173	0.015368	0.052796	0.047573	↵
0.040206	0.054742	0.018299	0.016436	0.0042429	0.017169	↵
0.015498	0.083502	0.015143	0.07754	0.030263	0.20451	↵
0.026323	0.017169	0.032506	0.019513	0.049809	0.019664	↵
0.012379	0.025056	0.0032111	0.030636	0.0087809	0.058902	↵
0.026684	0.01326	0.17324	0.028187	0.030636	0.047798	↵
0.059925	0.10615	0.67643	0.87105	0.3473	1.3482	↵
0.56625	0.15836	1.2331	0.54917	3	1.9443	↵
16.39	16.078	13.258	9.3038	14.717	0.50709	↵
0	0	0	0	0	0	0 ↵
25.526	27.881	9.8022	0	0	0	↵
0	0	0	7.7428	27.461	15.663	14.828 ↵
0	0					
0.038861	0.10523	0.023433	0.01886	0.012654	0.020328	↵
0.019797	0.1103	0.01454	0.099796	0.10823	0.043024	↵
0.15557	0.27281	0.031105	0.020328	0.040816	0.049044	↵
0.074371	0.070841	0.018204	0.015133	0.0054177	0.015012	↵
0.01382	0.13105	0.017945	0.11017	0.02781	0.19922	↵
0.015023	0.015012	0.054551	0.025064	0.071534	0.0327	↵
0.013416	0.018664	0.0044722	0.018843	0.0096152	0.078621	↵
0.021016	0.020364	0.17306	0.018549	0.018843	0.05656	↵
0.068153	0.061526	0.35586	0.54917	0.2694	1.0012	↵
0.37796	0.25917	1.1312	0.54263	2.9999	3.8582	↵
10.576	7.8236	12.082	6.5965	6.7034	0.5	↵
0	0	0	0	0	0	1.1616 ↵
6.6093	11.775	10.713	1	0	0	↵

```

0          0          1.1667          7.9516          12.844          13.138          8.949 ↵
2          1
    0.031878    0.14902    0.02761    0.014425    0.010004    0.013373 ↵
0.013226    0.15214    0.011236    0.092479    0.12905    0.020022 ↵
0.64148    1.0433    0.012704    0.013373    0.036805    0.011175 ↵
0.040317    0.12092    0.021487    0.019295    0.0056962    0.019282 ↵
0.017312    0.12679    0.023672    0.17809    0.033427    0.29206 ↵
0.032785    0.019282    0.021217    0.055155    0.035749    0.20687 ↵
0.018812    0.022751    0.0068536    0.025141    0.010929    0.19883 ↵
0.018139    0.024168    0.46274    0.015025    0.025141    0.030154 ↵
0.054926    0.077973    0.84319    0.99841    0.64351    1.2432 ↵
0.5542    1.2255    1.453    0.39841    2.8333    0.33333 ↵
0.73679    11.363    13.41    7.8387    1.2734    0 ↵
0          0          0          1.4218    14.624    19.919    14.731 ↵
0          0          0          0          0    0.33333    1 ↵
1.786    4.2527    16.946    12.33    10.291    12.023 ↵
0          0
    0.033448    0.14754    0.02859    0.01676    0.010885    0.023298 ↵
0.01322    0.14898    0.016483    0.07781    0.087909    0.019941 ↵
0.65697    1.1917    0.022907    0.023298    0.056054    0.028481 ↵
0.040985    0.092108    0.021106    0.025508    0.006339    0.024827 ↵
0.018567    0.10085    0.02959    0.12845    0.039265    0.23739 ↵
0.04179    0.024827    0.027942    0.040862    0.051572    0.13979 ↵
0.019022    0.023019    0.0065876    0.021979    0.018454    0.13572 ↵
0.023968    0.050114    0.27404    0.01884    0.021979    0.04266 ↵
0.096601    0.091427    1.13    1.2536    0.44698    1.4327 ↵
0.50709    0.57945    1.1075    0.51331    3    0.16667 ↵
0.46462    14.059    17.725    13.68    5.5362    0 ↵
0          0          0    0.33333    13.233    19.15    18.623 ↵
0          0          0          0          0          0    0 ↵
1.2225    4.0708    17.769    23.095    14.525    19.807 ↵
0.16667    0
    0.060012    0.12641    0.02904    0.026199    0.010629    0.027207 ↵
0.015986    0.14385    0.026872    0.19349    0.13451    0.02438 ↵
0.47904    1.142    0.029853    0.027207    0.033747    0.026676 ↵
0.057161    0.064094    0.021142    0.009856    0.0038982    0.010718 ↵
0.017057    0.09926    0.015064    0.20594    0.028086    0.33363 ↵
0.018406    0.010718    0.035127    0.028127    0.046462    0.067578 ↵
0.0087927    0.01219    0.002361    0.012805    0.0070685    0.09853 ↵
0.010233    0.015001    0.14621    0.014859    0.012805    0.02908 ↵
0.02566    0.14304    0.89848    0.93052    0.81323    2.0043 ↵
0.63746    0.3344    2.3927    0.63932    2.8333    0.33333 ↵
0.79682    24.189    17.536    21.282    0.66667    0 ↵
0          0          0          0          0    18.85    19.787 ↵
3.6527    0          0          0          0          0 ↵
0          0          0    2.3236    9.68    8.8685    9.0368 ↵
1.5877    0
    0.06806    0.18203    0.042816    0.043679    0.01736    0.038979 ↵
0.030067    0.18237    0.038936    0.14701    0.20587    0.030481 ↵

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0.54157      1.3212      0.036541      0.038979      0.045745      0.062235 ✓
0.06588      0.084203      0.023115      0.015426      0.0058975      0.017371 ✓
0.020785      0.11726      0.02266      0.20367      0.042043      0.30094 ✓
0.030414      0.017371      0.042655      0.049805      0.15021      0.11356 ✓
0.02615      0.035899      0.009798      0.03353      0.01866      0.18541 ✓
0.040242      0.029027      0.38083      0.024829      0.03353      0.1178 ✓
0.043903      0.17505      0.50577      0.69693      0.56305      1.5281 ✓
0.5599      0.96406      1.7656      0.5599      4.0672      5.3739 ✓
2.7354      11.037      28.008      29.925      5.1704      0 ✓
0      0      0      0      0.60945      16.636      28.975 ✓
16.723      0.16667      0      0      0      0 ✓
0      0      2.2552      3.6344      16.472      19.08      18.994 ✓
5.053      3.4174
    0.021123      0.11581      0.022401      0.014187      0.0084068      0.016031 ✓
0.013704      0.11504      0.012134      0.1237      0.15058      0.035585 ✓
0.39473      1.1058      0.016354      0.016031      0.02811      0.045851 ✓
0.053375      0.038505      0.0083643      0.0093951      0.0013063      0.0093329 ✓
0.0054164      0.061929      0.00939      0.16811      0.007908      0.42215 ✓
0.010929      0.0093329      0.02542      0.012151      0.062497      0.097539 ✓
0.01535      0.038033      0.0025519      0.038712      0.0094753      0.12576 ✓
0.037939      0.012616      0.45884      0.033195      0.038712      0.058776 ✓
0.049641      0.053385      0.29994      0.55777      0.58631      1.7523 ✓
0.64918      1.1467      1.6812      0.56625      3      0.33333 ✓
3.2037      8.5905      18.086      13.439      0      0 ✓
0      0      0      0      0.5      10.467      10.465 ✓
1.1738      0      0      0      0      0 ✓
0      0      0      2.086      16.456      40.434      48.046 ✓
0      0
    0.025937      0.11337      0.022384      0.012735      0.0083835      0.015465 ✓
0.01453      0.11717      0.011535      0.17559      0.15206      0.038961 ✓
0.38807      1.105      0.018271      0.015465      0.025307      0.044744 ✓
0.046999      0.028812      0.0080574      0.010436      0.0011221      0.014649 ✓
0.0053645      0.059787      0.0092538      0.14531      0.0071565      0.42905 ✓
0.012259      0.014649      0.024081      0.016254      0.076897      0.11146 ✓
0.015625      0.046251      0.002718      0.041744      0.010173      0.1224 ✓
0.0458      0.015549      0.44073      0.040153      0.041744      0.070412 ✓
0.062463      0.051488      0.4196      0.60945      0.59588      3.3091 ✓
0.99003      1.0577      1.7181      0.48714      2.8333      0.33333 ✓
2.9867      9.8343      18.326      13.922      0      0 ✓
0      0      0      0      0      10.732      10.709 ✓
0.83333      0      0      0      0      0 ✓
0      0      0      2.4745      22.019      34.051      51.219 ✓
1.0994      0
    0.037505      0.13268      0.023822      0.023911      0.012499      0.015373 ✓
0.017436      0.14445      0.020875      0.11295      0.1033      0.046856 ✓
0.31401      0.44834      0.036262      0.015373      0.068835      0.034082 ✓
0.075754      0.055249      0.013071      0.014569      0.003554      0.015446 ✓
0.010341      0.10225      0.015188      0.18325      0.020866      0.21499 ✓
0.021955      0.015446      0.044893      0.025878      0.057745      0.14115 ✓

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0.014738      0.014197      0.0040992      0.0205      0.01178      0.16403 ✓
0.014817      0.026704      0.29819      0.015542      0.0205      0.03189 ✓
0.026646      0.11912      0.43802      0.60356      0.2378      2.5189 ✓
0.95077      0.99392      1.2134      0.5542      3      0.36839 ✓
4.4301      15.696      21.646      9.4993      5.3184      5.4971 ✓
0      0      0      0      3.5777      12.358      14.09 ✓
3.2547      0      0      0      0      0 ✓
0.52251      1.7913      4.9742      10.921      14.315      14.326 ✓
1.1859      0      0
    0.037505      0.13268      0.023822      0.023911      0.012499      0.015373 ✓
0.017436      0.14445      0.020875      0.11295      0.1033      0.046856 ✓
0.31401      0.44834      0.036262      0.015373      0.068835      0.034082 ✓
0.075754      0.055249      0.013071      0.014569      0.003554      0.015446 ✓
0.010341      0.10225      0.015188      0.18325      0.020866      0.21499 ✓
0.021955      0.015446      0.044893      0.025878      0.057745      0.14115 ✓
0.014738      0.014197      0.0040992      0.0205      0.01178      0.16403 ✓
0.014817      0.026704      0.29819      0.015542      0.0205      0.03189 ✓
0.026646      0.11912      0.43802      0.60356      0.2378      2.5189 ✓
0.95077      0.99392      1.2134      0.5542      3      0.36839 ✓
4.4301      15.696      21.646      9.4993      5.3184      5.4971 ✓
0      0      0      0      3.5777      12.358      14.09 ✓
3.2547      0      0      0      0      0 ✓
0.52251      1.7913      4.9742      10.921      14.315      14.326 ✓
1.1859      0      0
    0.046364      0.12277      0.031781      0.031357      0.017692      0.03326 ✓
0.028525      0.14729      0.024657      0.073956      0.09022      0.072157 ✓
0.15932      0.30872      0.054361      0.03326      0.055174      0.072335 ✓
0.049377      0.062975      0.012916      0.019809      0.0026641      0.0229 ✓
0.012231      0.080118      0.020805      0.15321      0.031564      0.23076 ✓
0.028306      0.0229      0.034067      0.039537      0.070893      0.14878 ✓
0.021323      0.058502      0.006247      0.063616      0.01652      0.16143 ✓
0.02334      0.032947      0.3103      0.053879      0.063616      0.0701 ✓
0.097736      0.13639      0.50544      0.76997      0.46251      1.5706 ✓
0.59295      0.76751      1.3019      0.48714      2.8333      0.5 ✓
9.2673      13.955      19.275      9.9142      8.0646      6.3177 ✓
0      0      0      0      0.83333      23.962      23.706 ✓
1.9124      0      0      0      0      0 ✓
1.1859      2.6203      24.643      20.992      25.273      38.699 ✓
0      0      0
    0.040484      0.11127      0.026069      0.024246      0.014567      0.024593 ✓
0.022215      0.13141      0.020956      0.057755      0.071686      0.054027 ✓
0.18891      0.35327      0.040988      0.024593      0.045961      0.051298 ✓
0.045285      0.031403      0.0077021      0.011804      0.0016799      0.019461 ✓
0.0074947      0.057457      0.011354      0.15357      0.021307      0.18853 ✓
0.016763      0.019461      0.027019      0.041576      0.034221      0.1245 ✓
0.011966      0.02522      0.0033052      0.029976      0.0084877      0.12584 ✓
0.013918      0.019779      0.29033      0.026434      0.029976      0.027473 ✓
0.065478      0.11122      0.55452      0.80277      0.27406      1.1976 ✓
0.58554      0.6748      1.0612      0.52478      3      0.33333 ✓

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5.5871      11.869      15.345      7.4686      5.0849      5.9137 ✓
0           0           0           0           0           13.82      13.75 ✓
1.2734      0           0           0           0           0 ✓
0           2.8447      13.744      8.843      12.939      8.0071      0 ✓
0           0
      0.072791      0.12992      0.030376      0.031918      0.013355      0.032035 ✓
0.019978      0.15507      0.032531      0.10724      0.062265      0.039046 ✓
0.34694      0.69941      0.03266      0.032035      0.058985      0.054324 ✓
0.043867      0.083153      0.026385      0.014465      0.0074956      0.021504 ✓
0.023389      0.11729      0.022334      0.24842      0.046682      0.14245 ✓
0.032133      0.021504      0.039262      0.050042      0.07858      0.14077 ✓
0.022992      0.025386      0.0065606      0.019393      0.018482      0.18678 ✓
0.025153      0.038566      0.30843      0.013779      0.019393      0.064022 ✓
0.070168      0.1962      0.75708      0.95618      0.2354      1.7482 ✓
0.66845      0.873      2.3737      0.79682      3      0.33333 ✓
0.8319      7.1793      24.931      14.692      7.5787      6.4105 ✓
0           0           0           0           3.4705      17.18      22.256 ✓
5.1832      0           0           0           0           0 ✓
0           3.2377      5.7046      9.518      33.093      35.729      0.66667 ✓
0           0
      0.082284      0.13813      0.032256      0.029455      0.014509      0.030881 ✓
0.023337      0.17      0.030168      0.122      0.076712      0.04848 ✓
0.33795      0.67771      0.03126      0.030881      0.058547      0.051587 ✓
0.03994      0.12102      0.028387      0.027061      0.0089637      0.034598 ✓
0.021941      0.14954      0.033843      0.21519      0.038904      0.15357 ✓
0.039951      0.034598      0.03794      0.066308      0.055902      0.17799 ✓
0.019657      0.01992      0.0059799      0.020232      0.014373      0.21086 ✓
0.019896      0.032231      0.34825      0.012098      0.020232      0.044553 ✓
0.079981      0.17695      0.6336      0.77408      0.33505      2.1903 ✓
0.7232      1.1877      2.0852      0.59094      2.8333      0.52251 ✓
1.7256      8.3535      20.473      15.244      8.264      8.391 ✓
0           0           0           1           6.0492      19.181      23.147 ✓
7.9624      0           0           0           0           0 ✓
1.2971      2.6833      5.6245      10.092      23.188      23.965 ✓
0.69693      0           0
      0.041035      0.10448      0.034984      0.042469      0.020437      0.039447 ✓
0.031151      0.11436      0.033921      0.065829      0.13773      0.071815 ✓
0.093979      0.19237      0.071524      0.039447      0.032669      0.06152 ✓
0.064398      0.12431      0.040739      0.030086      0.01799      0.030265 ✓
0.036756      0.15937      0.041451      0.10956      0.082599      0.14844 ✓
0.059094      0.030265      0.058794      0.08292      0.040373      0.1632 ✓
0.02238      0.022249      0.0058674      0.017141      0.014798      0.17148 ✓
0.017373      0.025682      0.56284      0.030846      0.017141      0.034287 ✓
0.041879      0.22974      0.38199      0.86694      0.18373      1.5927 ✓
0.84092      1.6542      1.5257      0.64918      3      3.8059 ✓
22.246      10.698      11.886      9.2731      10.022      1.3555 ✓
0           0           0           0.33333      6.8468      15.934      32.859 ✓
21.07      2.0229      0           0           0           0 ✓
0           0           1.9065      4.7438      14.145      18.687      22.472 ✓
```

	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

[illegible]

0.3578	0.96683	0.98663	0.00042505	0.00059808	0.0034694 ✓
0.2601	0.017202	0.25418	0.00021894	0.058583	0.00028894 ✓
0.000342	0.0049358	0.25396	0.0006367	0.98423	0.00024918 ✓
0.000342	0.0035306	0.31841	0.02226	0.34363	0.0001984 ✓
0.058583	0.00048587	0.00030405	0.005164	0.34344	0.00053952 ✓
0.00022152	0.00030405	5.7137	15.757	18.778	3.0438 ✓
31.602	9.5278	2.8168	31.358	9.6111	0.5 ✓
0.055556	19.25	97.75	133.69	48.667	0.083333 ✓
0	0	0	0	0	2.1389 ✓
81.778	215.11	0.97222	0	0	0 ✓
0	0	0	0	0	0.61111 ✓
25.556	182.17	91.667	0	0	
1.3996	0.66471	0.16649	0.98701	0.028039	0.96082 ✓
0.12764	0.7349	1.0011	0.68917	0.46454	0.17729 ✓
0.56906	2.9798	0.88336	0.96082	1.1294	0.98441 ✓
0.75485	0.17012	0.14789	0.42598	0.022164	0.44524 ✓
0.12768	0.58473	0.45105	0.79423	0.24895	0.091313 ✓
0.28276	0.44524	0.7178	0.40421	0.33036	-0.18595 ✓
0.14104	0.078317	0.020028	0.083777	0.12795	0.5163 ✓
0.16235	0.26712	-0.019204	-0.056554	0.083777	0.31179 ✓
0.22751	0.0077473	0.20322	0.062518	0.98624	0.00037952 ✓
0.062148	0.0038651	0.00062364	0.011529	0.98586	0.0011766 ✓
0.37939	0.98071	0.58391	0.00044959	0.00062364	0.0047749 ✓
0.43996	0.027952	0.42294	0.00031426	0.062148	0.00076271 ✓
0.00051704	0.0068134	0.42263	0.00085643	0.71389	0.00037861 ✓
0.00051704	0.0031683	0.15542	0.010217	0.089908	0.00032906 ✓
0.062148	9.5299e-05	0.00051497	0.0041956	0.089579	0.00078786 ✓
0.00038035	0.00051497	6.0809	16.728	17.917	2.0128 ✓
32.658	9.3889	1.644	32.202	9.5278	0.5 ✓
0.027778	0.36111	73.194	161.17	50.222	14.528 ✓
0	0	0	0	0	0 ✓
0	0	85.667	173.14	41.194	0 ✓
0	0	0	0.11111	1.9722	116.72 ✓
95.528	85.667	0	0	0	
1.4403	0.65187	0.1773	1.0136	0.031937	0.99308 ✓
0.13754	0.78838	1.0292	0.68418	0.40553	0.20011 ✓
0.40593	2.8125	0.90271	0.99308	1.1853	1.0103 ✓
0.80847	0.11234	0.1856	0.43641	0.034595	0.46892 ✓
0.16643	0.69613	0.47426	0.77782	0.33848	-0.020293 ✓
0.24957	0.46892	0.76391	0.48158	0.25183	-0.34728 ✓
0.14477	-0.022688	0.021169	-0.032071	0.12715	0.59911 ✓
0.14781	0.25182	-0.13138	-0.14411	-0.032071	0.22423 ✓
0.16003	0.0079801	0.16974	0.064184	1.0115	0.00042215 ✓
0.063803	0.0040721	0.00064993	0.011852	1.0111	0.0013321 ✓
0.39083	0.96463	0.28705	0.00046571	0.00064993	0.0050865 ✓
0.49981	0.029747	0.43792	0.00030963	0.063803	0.00086236 ✓
0.00048934	0.0073855	0.43762	0.00083891	0.50555	0.00035912 ✓
0.00048934	0.0028052	0.12833	0.0091264	0.082035	0.00026571 ✓
0.063803	7.6113e-05	0.00043916	0.0037359	0.08177	0.00066162 ✓

0.0003277	0.00043916	6.2605	16.567	18.111	1.7327 ✓
32.534	9.3889	2.3836	31.573	9.6944	0.47222 ✓
0.055556	0.63889	61.278	159.97	54.361	23.083 ✓
0.13889	0	0	0	0	0 ✓
0	0	100.92	131.5	67.25	0.33333 ✓
0	0	0.66667	1.9722	16.861	143.19 ✓
124.31	12.944	0.055556	0	0	
1.443	0.46905	0.26639	0.93689	0.072485	0.93308 ✓
0.23293	0.9739	0.97461	0.774	0.62069	0.47736 ✓
0.048441	1.7996	0.69316	0.93308	1.2863	1.1913 ✓
0.64824	0.15198	0.1163	0.37907	0.013852	0.37155 ✓
0.096166	0.49626	0.39692	0.69389	0.1682	0.26282 ✓
0.28997	0.37155	0.62757	0.42734	0.45629	-0.055331 ✓
0.12937	0.20299	0.016885	0.2198	0.10713	0.51163 ✓
0.24073	0.19394	-0.21502	0.10234	0.2198	0.44452 ✓
0.35854	0.008416	0.43416	0.060571	0.9334	0.00057692 ✓
0.06009	0.0036116	0.00089112	0.012391	0.93283	0.0014891 ✓
0.36788	0.99507	0.93088	0.00064217	0.00089112	0.0038541 ✓
0.36628	0.024816	0.38064	0.00021485	0.06009	0.00060409 ✓
0.00034601	0.00563	0.38043	0.00059823	0.94844	0.00024947 ✓
0.00034601	0.0035024	0.2375	0.014871	0.20141	0.00028736 ✓
0.06009	0.00021221	0.00043475	0.0048882	0.20113	0.00068251 ✓
0.00031915	0.00043475	5.915	16.176	18.389	2.3463 ✓
32.338	9.2778	2.1559	32.215	9.3889	0.5 ✓
0.86111	58.389	74.306	67.361	75.194	23.222 ✓
0.16667	0	0	0	0	0 ✓
0	0	83.722	204.83	11.444	0 ✓
0	0	0	0	0	24.861 ✓
108.64	147.39	19.111	0	0	
1.4616	0.49507	0.25347	0.94623	0.064779	0.93921 ✓
0.21812	0.96655	0.97983	0.66229	0.57064	0.42833 ✓
0.14136	1.96	0.72046	0.93921	1.257	1.1435 ✓
0.68198	0.12529	0.12476	0.3991	0.015888	0.3966 ✓
0.09663	0.55669	0.41836	0.83996	0.14119	0.07801 ✓
0.32708	0.3966	0.66487	0.41995	0.46691	-0.12547 ✓
0.14834	0.15675	0.022181	0.17104	0.12334	0.59238 ✓
0.21584	0.22942	-0.026881	0.031916	0.17104	0.44969 ✓
0.35516	0.0081367	0.40058	0.061186	0.94517	0.00039925 ✓
0.060749	0.0036919	0.00073549	0.012257	0.94477	0.0012516 ✓
0.37226	0.99112	0.84126	0.00053251	0.00073549	0.0040293 ✓
0.39853	0.026297	0.4013	0.00017109	0.060749	0.00067869 ✓
0.00026987	0.0060528	0.40113	0.00052774	0.88203	0.00019514 ✓
0.00026987	0.0035165	0.22552	0.013362	0.15434	0.00023716 ✓
0.060749	0.00016814	0.0003654	0.0050072	0.1541	0.00066123 ✓
0.00026601	0.0003654	5.9561	16.176	18.389	2.6597 ✓
32.432	9.1667	2.1466	31.924	9.3611	0.52778 ✓
0.83333	47.472	81.639	74.528	66.833	28.083 ✓
0.083333	0	0	0	0	0 ✓
0	0.27778	61.444	215.61	22.5	0.16667 ✓

```

0          0          0          0          0.19444          59.972 ✓
114.86      109.5      14.972      0.33333      0.16667
      1.2914      0.76802      0.11336      1.0077      0.013591      0.98349 ✓
0.087772      0.52338      1.0144      -0.64654      0.528      0.12618 ✓
0.633      3.2077      0.93499      0.98349      1.0826      0.99523 ✓
-0.15491      -0.75384      0.12931      -0.37421      0.01717      -0.34577 ✓
0.10569      0.59893      0.39619      -0.72174      0.18515      -0.69583 ✓
-0.45939      -0.34577      -0.17929      -0.31661      0.50155      -0.18053 ✓
0.16864      0.1772      0.028782      0.16214      0.14537      0.68208 ✓
0.2455      0.28944      0.039796      0.032693      0.16214      0.48203 ✓
0.40903      0.0067028      0.083111      0.063405      1.0075      0.00029104 ✓
0.063164      0.0039905      0.00044443      0.01026      1.0072      0.0007767 ✓
0.38293      0.97114      0.77911      0.0003245      0.00044443      0.0043319 ✓
0.3929      0.02508      0.37825      0.00026054      0.063164      0.00061433 ✓
0.00045493      0.0061901      0.37799      0.00071018      0.88537      0.00033546 ✓
0.00045493      0.0039464      0.27195      0.015274      0.17582      0.00029857 ✓
0.063164      0.00021975      0.00048827      0.0055499      0.17553      0.00064227 ✓
0.00036666      0.00048827      6.1164      16.223      18.444      2.9389 ✓
32.669      9.25      2.3259      32.957      9.1111      0.47222 ✓
0.055556      0.16667      19.917      219.36      59.611      0.41667 ✓
0          0          0          0          0.41667      18.111 ✓
175.36      106.11      0          0          0          0 ✓
0          0.055556      0.16667      0.80556      2.5      30.5 ✓
132.72      96.75      36.5      0          0
      1.3395      0.78      0.12741      1.0297      0.017027      1.0015 ✓
0.10011      0.55948      1.038      -0.68104      0.58602      0.1521 ✓
0.63034      3.0358      0.94406      1.0015      1.1385      1.0219 ✓
-0.084476      -0.73484      0.14963      -0.341      0.022823      -0.30624 ✓
0.12659      0.65036      0.37257      -0.7438      0.24069      -0.55158 ✓
-0.45704      -0.30624      -0.11894      -0.22418      0.50899      -0.17643 ✓
0.16987      0.17465      0.029209      0.15257      0.14769      0.68542 ✓
0.24407      0.29423      0.14352      0.028278      0.15257      0.48876 ✓
0.4032      0.0069641      0.055247      0.064845      1.0291      0.0002725 ✓
0.064586      0.0041726      0.00046285      0.010652      1.0288      0.0008207 ✓
0.38695      0.95355      0.78215      0.00033917      0.00046285      0.0042222 ✓
0.37969      0.023145      0.33921      0.00027436      0.064586      0.00052335 ✓
0.00041086      0.006094      0.33893      0.00060917      0.91201      0.0003067 ✓
0.00041086      0.0039752      0.27725      0.015601      0.17812      0.0003548 ✓
0.064586      0.00022946      0.00052981      0.005498      0.17776      0.00073675 ✓
0.00039567      0.00052981      6.1899      16.826      17.833      2.4251 ✓
32.635      9.1667      2.0977      32.118      9.2778      0.5 ✓
0.027778      0.11111      18.944      205.06      69.944      5.4167 ✓
0          0          0          0          0.055556      19.833 ✓
133.25      146.86      0          0          0          0 ✓
0          0          0          0.36111      2.3333      42.444 ✓
127.03      90.056      37.75      0.027778      0
      1.2172      0.70893      0.11302      0.97056      0.013592      0.96786 ✓
0.092032      0.50826      0.9775      -0.13886      0.37705      0.16276 ✓
0.072482      2.5076      0.88793      0.96786      1.1152      1.0211 ✓

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-0.012906    -0.38267    0.080612    -0.16467    0.006933    -0.14855 ✓
0.064809     0.36976     0.18412    -0.26933     0.10601    -0.61312 ✓
-0.21229     -0.14855    -0.030243   -0.14117     0.57879     0.042502 ✓
0.13274      0.31802     0.017694    0.32058     0.11392     0.53629 ✓
0.3447       0.23002    -0.094552    0.20526     0.32058     0.55274 ✓
0.48525     0.0064335    0.14326     0.06129     0.97357     0.0003172 ✓
0.061062     0.0037313    0.00047155  0.0097995    0.97325     0.00071564 ✓
0.3616       0.92722     0.95817     0.00034668  0.00047155  0.002507 ✓
0.152        0.01156     0.16421     0.00017267  0.061062     0.0001285 ✓
0.00026438   0.0035307    0.16404     0.00044437  0.97317     0.00019429 ✓
0.00026438   0.0041955    0.35163     0.021567    0.31813     0.00029995 ✓
0.061062     0.00044925  0.00044208  0.0060129    0.31783     0.00069441 ✓
0.00032758   0.00044208   5.7669      17.637      16.861      2.9041 ✓
33.316       9.2222      1.9679      34.868      8.8611      0.47222 ✓
0.055556     0.22222     70.111      184.25      44.778      0.11111 ✓
0            0           0           0           0           0 ✓
23.333       275.19      1.4722      0           0           0 ✓
0            0           0           0           0           0.97222 ✓
71.111       129.92      97.222      0.77778     0           0
    1.3177     0.67269     0.13137     1.0229     0.019042    1.0271 ✓
0.10365     0.64497     1.0323     -0.25496    0.17915     0.16782 ✓
-0.10925     3.0134      0.9418      1.0271      1.1505      1.0432 ✓
0.10246     -0.44811    0.11752     -0.13543    0.014331    -0.11009 ✓
0.095445     0.55057     0.17988     -0.45913    0.15901     -0.55523 ✓
-0.20997     -0.11009    0.066403    -0.073714   0.62025     -0.016728 ✓
0.14763      0.3142      0.02246     0.32584     0.12448     0.63697 ✓
0.34754      0.23482     -0.18183    0.19695     0.32584     0.5867 ✓
0.48315     0.0070986    0.076223    0.064293    1.0192     0.00031119 ✓
0.064016     0.0041059    0.00049043  0.010785     1.0189     0.0008393 ✓
0.37763      0.82136     0.94814     0.00035746  0.00049043  0.0030866 ✓
0.16746      0.011143    0.13413     0.00019839  0.064016     0.00011699 ✓
0.00032105   0.0043363    0.13393     0.00057175  0.93606     0.0002364 ✓
0.00032105   0.0046482    0.37576     0.021923    0.31776     0.00032948 ✓
0.064016     0.00046805  0.00050875  0.0065559    0.31743     0.00093251 ✓
0.00037188   0.00050875   6.0532      16.655      17.833      2.8641 ✓
31.876       9.5278      2.4114      32.508      9.4722      0.97222 ✓
1.0833       0.94444     36.111      175.83      81.75      3.3056 ✓
0            0           0           0           0           0.16667 ✓
35.444       238.42      25.944      0.027778    0           0 ✓
0            0           0           0           0.66667     1.8611 ✓
75.778       122.53      95.083      2.6944      0.75        0
    1.2374     0.63704     0.14983     0.94939    0.022937    0.94354 ✓
0.12811     0.60039     0.96139     -0.36282    0.57788     0.2521 ✓
0.005171     2.0832      0.82475     0.94354     1.1589      1.0935 ✓
-0.10954     -0.44453    0.072425    -0.26013    0.0053134    -0.24593 ✓
0.058218     0.33499     0.27012     -0.47494    0.095096     -0.47613 ✓
-0.30489     -0.24593    -0.13258    -0.2148     0.47214     0.12883 ✓
0.075023     0.31222     0.0058576    0.30882     0.061871     0.34331 ✓
0.32144      0.11489     -0.15144    0.25828     0.30882     0.45362 ✓

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0.40429      0.0066735      0.2235      0.060173      0.95098      0.0003609 ✓
0.059909     0.0035898     0.00055418    0.010153     0.95062     0.00085932 ✓
0.35912      0.9886      0.9896      0.00040492    0.00055418    0.0026818 ✓
0.2273      0.017016     0.26215     0.00011144    0.059909     0.00028361 ✓
0.00018108   0.0039599     0.26204     0.00047319    0.99049     0.00012504 ✓
0.00018108   0.002961     0.26428     0.019549     0.30373     0.00018457 ✓
0.059909     0.00037894    0.00027799    0.0043057     0.30355     0.00048365 ✓
0.00020409   0.00027799      5.75      16.95      17.556      2.8817 ✓
33.076      9.25      2.6345     32.969     9.2778      0.5 ✓
0.055556     2.2778      109.44     126.28     61.444      0 ✓
0      0      0      0      0      0.083333 ✓
80.222      219.47     0.22222      0      0      0 ✓
0      0      0      0      0      0.86111 ✓
17.778      240      41.361      0      0
      1.2325     0.63243     0.15292     0.94616     0.02387     0.93947 ✓
0.13106     0.60003     0.95867    -0.34922    0.57818     0.26017 ✓
-0.0055268   2.0593     0.81918     0.93947     1.1623     1.0983 ✓
-0.098753    -0.41741    0.068973    -0.23958    0.0048204    -0.22435 ✓
0.055814     0.31865     0.24945     -0.54584    0.091849     -0.52293 ✓
-0.2817     -0.22435    -0.12513    -0.19607    0.50894     0.13598 ✓
0.081762     0.33398     0.0069224     0.3299     0.06749     0.37296 ✓
0.34421     0.12671     -0.13829     0.27357     0.3299     0.49177 ✓
0.43524     0.0066722     0.2353     0.059911    0.94617     0.00034951 ✓
0.059647     0.0035584    0.00054013    0.010138    0.94582     0.00086077 ✓
0.35904     0.98712     0.9889     0.00039307    0.00054013    0.0025774 ✓
0.20502     0.015713     0.24166     0.00016895    0.059647     0.00024141 ✓
0.00025398   0.0036954     0.24149     0.00043479    0.9901     0.00018651 ✓
0.00025398   0.003176     0.29213     0.021208     0.3292     0.0001757 ✓
0.059647     0.00044992    0.00026525    0.0046872    0.32902     0.00046545 ✓
0.00019325   0.00026525      5.7496     16.977     17.5      2.8621 ✓
32.795      9.3611     2.6518     33.35     9.1389     0.47222 ✓
0.055556     2.2222     112.53     122.06     62.667      0 ✓
0      0      0      0      0      0 ✓
59.167      240.69     0.13889      0      0      0 ✓
0      0      0      0      0      1.1389 ✓
17.667      208.17     72.667     0.36111      0
      1.5967     0.6319     0.22747     1.0585     0.052293     1.0281 ✓
0.18117     0.96477     1.0829     -0.3538     0.27344     0.2833 ✓
0.56365     2.6995     0.89042     1.0281     1.299     1.1201 ✓
0.021568     -0.63308     0.13614     -0.26233    0.018701     -0.24359 ✓
0.10848     0.65465     0.2957     -0.57306    0.17689     -0.54508 ✓
-0.33928     -0.24359    -0.017579    -0.20246    0.29081     -0.27825 ✓
0.13348     0.026158     0.018029     0.024513    0.11783     0.56905 ✓
0.13651     0.23478     -0.035782    -0.092218     0.024513     0.2651 ✓
0.18726     0.0091768     0.15919     0.067693     1.059     0.00051011 ✓
0.067189     0.0045166     0.0008272     0.013571     1.0585     0.0013899 ✓
0.38736     0.94327     0.30293     0.00059393    0.0008272     0.0042454 ✓
0.31213     0.018505     0.26246     0.00028333    0.067189     0.00032615 ✓
0.00044684   0.0059101     0.26218     0.0010879     0.50081     0.00031515 ✓

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0.00044684	0.0029158	0.12052	0.0085482	0.071494	0.00031823 ✓
0.067189	6.546e-05	0.00048164	0.0038077	0.071176	0.00080316 ✓
0.00035342	0.00048164	6.1946	16.731	17.917	2.866 ✓
29.652	10.306	2.1589	32.646	9.4167	0.5 ✓
0.083333	2.5556	65.722	121.97	62.139	38.333 ✓
8.6944	0	0	0	0	3.3333 ✓
97.167	197.25	2.25	0	0	0 ✓
0	0	0.11111	0.86111	4	135.42 ✓
130.14	29.194	0.27778	0	0	
1.5967	0.6319	0.22747	1.0585	0.052293	1.0281 ✓
0.18117	0.96477	1.0829	-0.3538	0.27344	0.2833 ✓
0.56365	2.6995	0.89042	1.0281	1.299	1.1201 ✓
0.021568	-0.63308	0.13614	-0.26233	0.018701	-0.24359 ✓
0.10848	0.65465	0.2957	-0.57306	0.17689	-0.54508 ✓
-0.33928	-0.24359	-0.017579	-0.20246	0.29081	-0.27825 ✓
0.13348	0.026158	0.018029	0.024513	0.11783	0.56905 ✓
0.13651	0.23478	-0.035782	-0.092218	0.024513	0.2651 ✓
0.18726	0.0091768	0.15919	0.067693	1.059	0.00051011 ✓
0.067189	0.0045166	0.0008272	0.013571	1.0585	0.0013899 ✓
0.38736	0.94327	0.30293	0.00059393	0.0008272	0.0042454 ✓
0.31213	0.018505	0.26246	0.00028333	0.067189	0.00032615 ✓
0.00044684	0.0059101	0.26218	0.0010879	0.50081	0.00031515 ✓
0.00044684	0.0029158	0.12052	0.0085482	0.071494	0.00031823 ✓
0.067189	6.546e-05	0.00048164	0.0038077	0.071176	0.00080316 ✓
0.00035342	0.00048164	6.1946	16.731	17.917	2.866 ✓
29.652	10.306	2.1589	32.646	9.4167	0.5 ✓
0.083333	2.5556	65.722	121.97	62.139	38.333 ✓
8.6944	0	0	0	0	3.3333 ✓
97.167	197.25	2.25	0	0	0 ✓
0	0	0.11111	0.86111	4	135.42 ✓
130.14	29.194	0.27778	0	0	
1.597	0.61005	0.24898	1.0637	0.062971	1.0397 ✓
0.21125	0.987	1.0929	-0.57655	0.12541	0.40045 ✓
0.27877	2.1141	0.85282	1.0397	1.4052	1.2446 ✓
-0.029649	-0.46687	0.10591	-0.24253	0.011379	-0.24495 ✓
0.091358	0.43723	0.26481	-0.6368	0.17901	-0.017331 ✓
-0.33118	-0.24495	-0.048224	-0.2613	0.26077	-0.30254 ✓
0.14198	-0.0025355	0.020599	-0.035129	0.12534	0.56331 ✓
0.15276	0.2531	0.075952	-0.11915	-0.035129	0.24182 ✓
0.15278	0.0096161	0.1944	0.068224	1.0618	0.00059656 ✓
0.067663	0.0045809	0.00095524	0.013978	1.0612	0.0017959 ✓
0.38816	0.96161	0.44083	0.00067923	0.00095524	0.0033354 ✓
0.242	0.016323	0.23937	0.00025495	0.067663	0.00025753 ✓
0.00039082	0.0046089	0.23912	0.00082444	0.61173	0.00028068 ✓
0.00039082	0.0031319	0.14934	0.0097883	0.083443	0.0003081 ✓
0.067663	8.7901e-05	0.00045932	0.0042089	0.083135	0.00074273 ✓
0.00033755	0.00045932	6.2183	16.284	18.25	2.0469 ✓
32.506	9.3611	2.0002	32.741	9.1389	0.47222 ✓
0.083333	6.0556	78.361	85.917	74.222	46.861 ✓

8.0278	0	0	0	0	0.13889 ✓
100.69	198.5	0.66667	0	0	0 ✓
0	0	0.27778	1.3611	20.389	141.47 ✓
103	33.5	0	0	0	
1.6227	0.60305	0.2561	1.0578	0.066249	1.0392 ✓
0.21607	1.0196	1.0886	-0.58714	0.074573	0.40558 ✓
0.28971	2.1847	0.83957	1.0392	1.39	1.2412 ✓
-0.035252	-0.47869	0.10941	-0.24882	0.012029	-0.24426 ✓
0.094635	0.44344	0.27186	-0.6042	0.18797	-0.10377 ✓
-0.34359	-0.24426	-0.054979	-0.25027	0.22548	-0.31922 ✓
0.13632	-0.021103	0.018723	-0.056864	0.1205	0.54469 ✓
0.13977	0.24285	0.05443	-0.13114	-0.056864	0.20943 ✓
0.13403	0.0091808	0.19768	0.068104	1.0588	0.00044145 ✓
0.0676	0.0045718	0.00077096	0.013694	1.0583	0.0014812 ✓
0.38772	0.96052	0.31155	0.00054495	0.00077096	0.0033992 ✓
0.25824	0.017066	0.24974	0.0002261	0.0676	0.00028115 ✓
0.00036357	0.0047616	0.24952	0.00082665	0.50048	0.00025896 ✓
0.00036357	0.0027903	0.12301	0.0088253	0.07751	0.00030734 ✓
0.0676	7.0634e-05	0.00046714	0.00366	0.077202	0.00069239 ✓
0.00034914	0.00046714	6.194	16.198	18.389	1.946 ✓
31.474	9.6667	2.0129	32.086	9.3056	0.5 ✓
0.055556	5.6111	83.917	81.472	77.639	39.472 ✓
11.333	0	0	0	0	0 ✓
107.5	192.08	0.41667	0	0	0 ✓
0	0	0	1.7222	16.194	153.53 ✓
120.89	7.6667	0	0	0	
1.5315	0.70892	0.1905	1.0882	0.037187	1.0767 ✓
0.15166	0.82261	1.1051	-0.35995	0.16112	0.24589 ✓
0.26606	2.6154	0.9558	1.0767	1.3206	1.1603 ✓
-0.0099548	-0.57378	0.13294	-0.24899	0.01835	-0.24406 ✓
0.11251	0.56383	0.28285	-0.60307	0.20361	-0.32301 ✓
-0.34121	-0.24406	-0.025329	-0.27524	0.27348	-0.28676 ✓
0.13855	0.014915	0.019711	0.00042389	0.12336	0.56023 ✓
0.14099	0.24926	-0.051697	-0.10192	0.00042389	0.24644 ✓
0.16777	0.0084245	0.02051	0.068722	1.0834	0.00044609 ✓
0.06833	0.0046724	0.00072084	0.012583	1.083	0.001151 ✓
0.39126	0.93289	0.20063	0.00052587	0.00072084	0.003635 ✓
0.2779	0.017418	0.24759	0.00025457	0.06833	0.00029243 ✓
0.00038527	0.0051337	0.24734	0.00065368	0.49096	0.00028478 ✓
0.00038527	0.0026466	0.11545	0.0084571	0.075563	0.00022154 ✓
0.06833	6.6638e-05	0.00034564	0.0036341	0.075342	0.00052616 ✓
0.0002567	0.00034564	6.2977	17.051	17.333	2.2415 ✓
33.244	9.1944	2.0281	32.492	9.2222	0.5 ✓
0.055556	0.22222	43	120.83	95.611	35.639 ✓
4.1389	0	0	0	0	1.8889 ✓
102.06	193.42	2.6389	0	0	0 ✓
0	0	0	1.5556	5.1667	142.92 ✓
120.56	29.694	0.11111	0	0	
1.6036	0.66821	0.21026	1.1045	0.04522	1.094 ✓

0.16802	0.93541	1.1247	-0.2793	0.16784	0.27819 ✓
0.2464	2.6326	0.95631	1.094	1.3542	1.1842 ✓
0.030761	-0.63344	0.15377	-0.24279	0.024429	-0.22908 ✓
0.12903	0.6642	0.28791	-0.60606	0.23278	-0.38592 ✓
-0.34842	-0.22908	0.015206	-0.25995	0.31671	-0.29964 ✓
0.14844	0.028169	0.022411	0.01422	0.13171	0.61634 ✓
0.15209	0.26387	-0.043112	-0.098138	0.01422	0.28861 ✓
0.18256	0.0090033	0.019729	0.070047	1.1008	0.00046326 ✓
0.069594	0.0048478	0.00073699	0.01339	1.1003	0.0014097 ✓
0.39957	0.90406	0.28318	0.00052432	0.00073699	0.0042088 ✓
0.31488	0.017899	0.24221	0.00027552	0.069594	0.0003077 ✓
0.00043486	0.0059382	0.24194	0.00087263	0.60485	0.0003097 ✓
0.00043486	0.003184	0.1403	0.0093107	0.076978	0.00033963 ✓
0.069594	7.8018e-05	0.0005403	0.0041659	0.076638	0.00075478 ✓
0.00040256	0.0005403	6.4167	16.963	17.528	2.3401 ✓
32.924	9.3611	2.1477	32.927	9.2222	0.47222 ✓
0.11111	0.77778	43.361	108.94	97.556	39.139 ✓
9.6389	0	0	0	0.16667	5.0833 ✓
101.47	185.25	8.0278	0	0	0 ✓
0	0	0.44444	1.3333	4.2778	140.08 ✓
107.58	46.111	0.16667	0	0	
1.5231	0.44531	0.28657	0.99087	0.083315	0.99078 ✓
0.24997	1.0778	1.0322	-0.065946	0.46221	0.50807 ✓
-0.0033885	1.81	0.736	0.99078	1.3463	1.257 ✓
0.2426	-0.56286	0.20883	-0.12986	0.045225	-0.10332 ✓
0.18081	0.80546	0.24728	-0.62867	0.36176	-0.2063 ✓
-0.31171	-0.10332	0.21317	0.0651	0.61214	-0.0064542 ✓
0.12776	0.37581	0.01681	0.39477	0.099062	0.61859 ✓
0.39772	0.15971	-0.67336	0.29892	0.39477	0.59898 ✓
0.44537	0.0095363	0.42935	0.063896	0.97845	0.00064693 ✓
0.063286	0.0040086	0.0011718	0.013491	0.9778	0.0025584 ✓
0.38429	0.608	0.9689	0.00081446	0.0011718	0.0045244 ✓
0.2813	0.014794	0.13584	0.0005058	0.063286	0.00020267 ✓
0.00079641	0.0058908	0.13534	0.0011705	0.72022	0.0005883 ✓
0.00079641	0.0044228	0.38979	0.024801	0.37547	0.00027211 ✓
0.063286	0.00059861	0.00045097	0.0063599	0.37519	0.00080109 ✓
0.00033178	0.00045097	6.2118	12.066	24.639	1.9156 ✓
24.444	12.25	3.6781	24.892	11.917	0.5 ✓
2.5278	44.722	68.667	63.472	71.194	48.278 ✓
0.63889	0	0	0	0.055556	3.75 ✓
70.667	125.17	99.639	0.72222	0	0 ✓
0	0	0	0	0.72222	4.3056 ✓
19.472	131.78	139.61	4.1111	0	
1.5391	0.65715	0.1691	1.2234	0.030337	1.2559 ✓
0.13273	0.88195	1.236	0.33755	0.0031977	0.22196 ✓
-0.87793	3.8356	1.1247	1.2559	1.4144	1.3384 ✓
0.39578	-1.0462	0.39781	-0.24529	0.15974	-0.1737 ✓
0.34931	1.442	0.46714	-0.70182	0.72172	-0.2948 ✓
-0.60884	-0.1737	0.34603	0.12563	0.63862	-0.11015 ✓

### Variance Statistics:

[illegible]

[illegible]

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0.0032557    4.5288e-06    0.00082418    3.2561e-08    2.7079e-06    5.3425e-09 ✓
6.3502e-08    1.0283e-06    0.00082545    1.0211e-07    7.3585e-05    3.9257e-08 ✓
6.3502e-08    1.1668e-07    0.0002187    1.0873e-06    0.00038816    1.9833e-08 ✓
2.7079e-06    2.2305e-09    3.8164e-08    3.4216e-07    0.00038923    6.4166e-08 ✓
2.3045e-08    3.8164e-08    0.016892    1.2257    1.8349    0.39625 ✓
4.3026    0.37063    0.70863    3.362    0.41587    9 ✓
0.11111    124.48    435.85    917.13    362.51    0.13571 ✓
0    0    0    0    0    22.123 ✓
382.58    499.24    6.8278    0    0    0 ✓
0    0    0    0    0    4.0159 ✓
211.05    165.23    457.26    0    0
    0.0023517    0.013753    0.00032768    0.00066498    5.3229e-05    0.00053113 ✓
7.7065e-05    0.013497    0.00056551    0.0026935    0.0036918    0.00070056 ✓
0.19983    0.77197    0.00042816    0.00053113    0.0027286    0.00063875 ✓
0.0034382    0.0015782    0.00030082    0.00036118    2.7513e-05    0.00042992 ✓
0.0003061    0.0051544    0.00047226    0.010092    0.0017766    0.031723 ✓
0.0005212    0.00042992    0.0021327    0.0078084    0.00081441    0.0072116 ✓
0.00014058    0.00044949    1.0755e-05    0.00073342    0.00011838    0.0094144 ✓
0.00017993    0.00061083    0.013977    0.00039744    0.00073342    0.00043708 ✓
0.0029621    8.3217e-07    0.0068704    2.3786e-06    0.00071292    1.8424e-07 ✓
2.7319e-06    4.0254e-08    3.7162e-07    5.9133e-07    0.00073234    6.3529e-07 ✓
8.1777e-05    3.1021e-05    0.013722    2.1825e-07    3.7162e-07    2.7045e-07 ✓
0.00071641    1.5197e-06    0.00033246    6.9458e-08    2.7319e-06    4.6223e-09 ✓
1.5202e-07    2.1542e-07    0.00033304    2.2585e-07    0.0099839    9.0942e-08 ✓
1.5202e-07    2.0044e-07    0.00047569    8.0471e-07    0.00028043    4.8719e-08 ✓
2.7319e-06    3.2963e-10    1.0215e-07    3.705e-07    0.00028232    1.2235e-07 ✓
6.2154e-08    1.0215e-07    0.020542    0.26758    0.47857    0.19139 ✓
1.1897    0.35873    0.11746    1.1708    0.31349    9 ✓
0.027778    0.75159    207.13    160.03    57.435    54.885 ✓
0    0    0    0    0    0 ✓
0    0    158.06    439.44    250.96    0 ✓
0    0    0    0.44444    14.828    219.12 ✓
501.63    484.91    0    0    0
    0.0025535    0.014022    0.00051591    0.00035323    0.00010421    0.00046013 ✓
0.00020112    0.018049    0.00030193    0.0049708    0.014519    0.0012061 ✓
0.13446    0.44531    0.00059476    0.00046013    0.0039293    0.00094823 ✓
0.0043885    0.0013562    0.00015084    0.00014204    2.0466e-05    0.00047782 ✓
0.00018095    0.0072096    0.00015606    0.02845    0.00087422    0.01468 ✓
0.00023544    0.00047782    0.00081848    0.023909    0.0026101    0.028839 ✓
0.00021554    0.00048138    1.7872e-05    0.00071435    0.00012396    0.033439 ✓
0.00023861    0.00078888    0.22948    9.5109e-05    0.00071435    0.0012725 ✓
0.00084517    9.0536e-07    0.007175    1.1692e-06    0.00035508    1.0546e-07 ✓
1.3122e-06    2.1462e-08    2.1393e-07    8.8944e-07    0.00036122    4.67e-07 ✓
3.2301e-05    3.4261e-05    0.013594    1.2314e-07    2.1393e-07    4.8499e-07 ✓
0.00034658    4.6346e-07    0.00013762    6.4488e-08    1.3122e-06    1.7286e-09 ✓
1.4748e-07    4.863e-07    0.00013785    2.3679e-07    0.0094956    8.7657e-08 ✓
1.4748e-07    7.7489e-07    0.0014321    1.1804e-06    0.00018494    4.6717e-08 ✓
1.3122e-06    2.9144e-10    1.161e-07    1.21e-06    0.00018714    1.6729e-07 ✓
7.0381e-08    1.161e-07    0.0090551    0.29833    0.67302    0.096473 ✓

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1.1697	0.30159	2.4987	1.8202	0.44683	8.0278 ✓
0.11111	1.4944	132.55	237.91	82.066	49.45 ✓
0.69444	0	0	0	0	0 ✓
0	0	72.421	355.29	227.96	0.8 ✓
0	0	3.2571	12.085	76.009	169.53 ✓
150.68	178	0.11111	0	0	
0.0063037	0.0099544	0.0015629	0.0001815	0.00043941	0.00023619 ✓
0.0011559	0.025964	0.00033386	0.0030063	0.0034261	0.0054129 ✓
0.01892	0.11792	0.0012371	0.00023619	0.0027875	0.0022632 ✓
0.0016165	0.0029967	0.00033486	0.00027013	1.8002e-05	0.00029476 ✓
0.00024018	0.0069726	0.0002293	0.0060124	0.00091587	0.041823 ✓
0.0006929	0.00029476	0.0010566	0.00038077	0.0024809	0.00038669 ✓
0.00015325	0.00062781	1.0311e-05	0.00093857	7.7105e-05	0.0034694 ✓
0.00071203	0.00017583	0.030011	0.00079451	0.00093857	0.0022847 ✓
0.003591	1.2291e-06	0.0070419	7.0953e-07	0.00012768	1.4148e-07 ✓
7.8517e-07	1.1283e-08	2.6255e-07	1.3367e-06	0.00013161	4.4733e-07 ✓
2.4922e-05	3.1987e-06	0.0002523	1.5897e-07	2.6255e-07	2.4695e-07 ✓
0.00045841	9.9851e-07	0.00029231	2.2439e-08	7.8517e-07	2.5097e-09 ✓
4.0644e-08	3.2383e-07	0.00029184	8.5906e-08	0.00027304	2.4866e-08 ✓
4.0644e-08	2.907e-07	0.0013097	2.8661e-06	0.00066608	6.0468e-08 ✓
7.8517e-07	2.4511e-09	1.2155e-07	3.7834e-07	0.0006701	1.5653e-07 ✓
7.1678e-08	1.2155e-07	0.011268	0.45755	0.75873	0.12062 ✓
1.8175	0.32063	0.025078	1.5206	0.30159	9 ✓
3.7802	268.64	258.5	175.78	86.561	216.58 ✓
0.25714	0	0	0	0	0 ✓
0	0	651.58	777.34	96.083	0 ✓
0	0	0	0	0	59.952 ✓
754.12	245.33	219.87	0	0	
0.0015102	0.011073	0.00054911	0.00035569	0.00016013	0.00041323 ✓
0.00039193	0.012166	0.00021142	0.0099593	0.011713	0.0018511 ✓
0.024202	0.074427	0.00096752	0.00041323	0.001666	0.0024053 ✓
0.0055311	0.0050185	0.00033137	0.000229	2.9351e-05	0.00022537 ✓
0.00019099	0.017175	0.00032201	0.012138	0.00077337	0.03969 ✓
0.00022568	0.00022537	0.0029758	0.00062819	0.0051172	0.0010693 ✓
0.00017999	0.00034834	2e-05	0.00035506	9.2452e-05	0.0061813 ✓
0.00044165	0.00041469	0.029949	0.00034406	0.00035506	0.003199 ✓
0.0046449	1.3559e-06	0.008217	1.3256e-06	0.00052974	1.0639e-07 ✓
1.5401e-06	2.1649e-08	4.184e-07	9.3103e-07	0.00052953	5.7573e-07 ✓
2.3859e-05	3.1948e-05	0.0012684	2.4675e-07	4.184e-07	5.7869e-07 ✓
0.0017891	1.3267e-06	0.00023279	4.0114e-08	1.5401e-06	3.6626e-09 ✓
8.2453e-08	9.4552e-07	0.00023362	1.5826e-07	0.00072228	4.7471e-08 ✓
8.2453e-08	5.0734e-07	0.0015147	1.8553e-06	0.00038377	4.5669e-08 ✓
1.5401e-06	1.7387e-09	9.3557e-08	8.1143e-07	0.00038624	2.2653e-07 ✓
5.3963e-08	9.3557e-08	0.0037854	0.12664	0.30159	0.072575 ✓
1.0025	0.14286	0.067167	1.2795	0.29444	8.9992 ✓
14.886	111.86	61.209	145.97	43.514	44.936 ✓
0.25	0	0	0	0	0 ✓
0	1.3492	43.683	138.64	114.77	1 ✓
0	0	0	0	1.3611	63.228 ✓

164.98	172.6	80.085	4	1	
0.0010162	0.022206	0.00076232	0.00020809	0.00010009	0.00017885 ✓
0.00017493	0.023148	0.00012625	0.0085523	0.016654	0.00040087 ✓
0.4115	1.0886	0.0001614	0.00017885	0.0013546	0.00012488 ✓
0.0016255	0.014622	0.00046169	0.00037231	3.2447e-05	0.00037179 ✓
0.00029972	0.016076	0.00056034	0.031717	0.0011174	0.085297 ✓
0.0010749	0.00037179	0.00045016	0.003042	0.001278	0.042793 ✓
0.0003539	0.00051759	4.6971e-05	0.00063207	0.00011944	0.039534 ✓
0.00032903	0.00058408	0.21413	0.00022574	0.00063207	0.00090927 ✓
0.0030169	9.5932e-07	0.0075849	6.8659e-07	0.00026873	1.0284e-07 ✓
8.2123e-07	1.294e-08	2.0474e-07	7.9208e-07	0.00027475	2.309e-07 ✓
2.6272e-05	7.3017e-05	0.0046786	1.2088e-07	2.0474e-07	3.2223e-07 ✓
0.0013907	2.0428e-06	0.00038475	4.5418e-08	8.2123e-07	4.9811e-09 ✓
1.1869e-07	5.1227e-07	0.00038414	1.8485e-07	0.0040071	7.1482e-08 ✓
1.1869e-07	5.2098e-07	0.0016127	1.7197e-06	0.00068591	4.4613e-08 ✓
8.2123e-07	1.475e-09	1.2189e-07	1.0393e-06	0.00068591	1.6481e-07 ✓
7.1664e-08	1.2189e-07	0.0060798	0.71097	0.99683	0.41411 ✓
1.5456	0.30714	1.5019	2.1113	0.15873	8.0278 ✓
0.11111	0.54286	129.11	179.84	61.444	1.6214 ✓
0	0	0	0	2.0214	213.87 ✓
396.75	217.02	0	0	0	0 ✓
0	0.11111	1	3.1897	18.086	287.17 ✓
152.03	105.91	144.54	0	0	
0.0011188	0.021769	0.00081737	0.0002809	0.00011848	0.00054278 ✓
0.00017478	0.022195	0.0002717	0.0060544	0.007728	0.00039766 ✓
0.43161	1.4201	0.00052473	0.00054278	0.0031421	0.00081117 ✓
0.0016798	0.0084839	0.00044545	0.00065064	4.0183e-05	0.00061638 ✓
0.00034475	0.010171	0.00087558	0.0165	0.0015417	0.056355 ✓
0.0017464	0.00061638	0.00078078	0.0016697	0.0026597	0.019542 ✓
0.00036183	0.00052989	4.3396e-05	0.00048307	0.00034054	0.018421 ✓
0.00057446	0.0025114	0.075098	0.00035495	0.00048307	0.0018198 ✓
0.0093318	1.328e-06	0.0075177	1.2244e-06	0.00033522	9.6448e-08 ✓
1.254e-06	2.1178e-08	3.6282e-07	8.1826e-07	0.00033928	4.581e-07 ✓
4.1354e-05	0.00019642	0.003287	2.1518e-07	3.6282e-07	3.4764e-07 ✓
0.0024877	3.8842e-06	0.00071753	5.3792e-08	1.254e-06	7.2121e-09 ✓
1.0837e-07	5.4858e-07	0.00071901	1.6486e-07	0.0025769	6.3446e-08 ✓
1.0837e-07	5.4836e-07	0.0011744	1.5469e-06	0.00052657	8.6725e-08 ✓
1.254e-06	1.5558e-09	1.7545e-07	8.8098e-07	0.00052728	2.1529e-07 ✓
1.0331e-07	1.7545e-07	0.0083589	1.2768	1.5714	0.19979 ✓
2.0525	0.25714	0.33577	1.2265	0.26349	9 ✓
0.027778	0.21587	197.65	314.17	187.14	30.65 ✓
0	0	0	0	0.11111	175.11 ✓
366.71	346.81	0	0	0	0 ✓
0	0	0	1.4944	16.571	315.74 ✓
533.4	210.97	392.31	0.027778	0	
0.0036015	0.015979	0.0008433	0.00068637	0.00011297	0.00074022 ✓
0.00025557	0.020693	0.00072211	0.037437	0.018092	0.00059439 ✓
0.22948	1.3043	0.00089118	0.00074022	0.0011389	0.00071162 ✓
0.0032674	0.0041081	0.000447	9.7141e-05	1.5196e-05	0.00011487 ✓

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0.00029094    0.0098525    0.00022692    0.04241    0.00078881    0.11131 ✓
0.00033879    0.00011487    0.0012339    0.00079115    0.0021587    0.0045667 ✓
7.7311e-05    0.0001486    5.5744e-06    0.00016397    4.9964e-05    0.0097082 ✓
0.00010471    0.00022503    0.021377    0.0002208    0.00016397    0.00084563 ✓
0.00065844    1.2905e-06    0.0072842    2.9032e-06    0.00073126    1.1441e-07 ✓
2.83e-06    4.3205e-08    2.2719e-07    1.2485e-06    0.00073122    2.9232e-07 ✓
8.1538e-05    0.00089719    9.8072e-05    1.3364e-07    2.2719e-07    2.5104e-07 ✓
0.00073576    9.097e-07    9.5116e-05    2.1251e-08    2.83e-06    4.5237e-10 ✓
4.3862e-08    4.3789e-07    9.4774e-05    6.2522e-08    0.000114    2.5515e-08 ✓
4.3862e-08    3.4348e-07    0.00028932    3.174e-07    0.00013749    4.1247e-08 ✓
2.83e-06    6.9023e-10    8.2595e-08    5.2855e-07    0.00013873    1.2593e-07 ✓
4.8657e-08    8.2595e-08    0.020461    0.80726    0.86587    0.66135 ✓
4.0172    0.40635    0.11182    5.7251    0.40873    8.0278 ✓
0.11111    0.63492    585.13    307.51    452.92    0.44444 ✓
0    0    0    0    0    0 ✓
355.31    391.53    13.342    0    0    0 ✓
0    0    0    0    0    5.3992 ✓
93.702    78.65    81.663    2.5206    0
    0.0046322    0.033136    0.0018332    0.0019079    0.00030137    0.0015194 ✓
0.00090401    0.03326    0.001516    0.021612    0.042383    0.00092908 ✓
0.29329    1.7456    0.0013353    0.0015194    0.0020926    0.0038732 ✓
0.0043401    0.0070901    0.00053428    0.00023796    3.478e-05    0.00030176 ✓
0.00043201    0.01375    0.00051348    0.041482    0.0017676    0.090564 ✓
0.00092499    0.00030176    0.0018194    0.0024805    0.022563    0.012895 ✓
0.00068381    0.0012888    9.6002e-05    0.0011242    0.0003482    0.034377 ✓
0.0016194    0.0008426    0.14503    0.00061648    0.0011242    0.013877 ✓
0.0019275    1.0033e-06    0.026272    7.8034e-06    0.0026498    9.8288e-08 ✓
8.1069e-06    1.3027e-07    1.9067e-07    1.3499e-06    0.0026545    2.2956e-07 ✓
0.00014287    0.0035204    0.00040084    1.1578e-07    1.9067e-07    3.7335e-07 ✓
0.001605    2.325e-06    0.00030331    3.5686e-08    8.1069e-06    1.0135e-09 ✓
6.7801e-08    5.6775e-07    0.00030347    1.8612e-07    0.00093057    4.0227e-08 ✓
6.7801e-08    8.0472e-07    0.0059753    8.2394e-06    0.0017055    5.0671e-08 ✓
8.1069e-06    2.0895e-08    9.8548e-08    1.4871e-06    0.0016995    2.0467e-07 ✓
5.8889e-08    9.8548e-08    0.030643    0.2558    0.48571    0.31703 ✓
2.335    0.31349    0.92941    3.1174    0.31349    16.542 ✓
28.879    7.4825    121.82    784.43    895.51    26.733 ✓
0    0    0    0    0    0.37143 ✓
276.77    839.56    279.65    0.027778    0    0 ✓
0    0    0    0    5.0857    13.209 ✓
271.32    364.03    360.76    25.533    11.679
    0.0004462    0.013411    0.00050179    0.00020128    7.0674e-05    0.00025698 ✓
0.0001878    0.013235    0.00014724    0.015302    0.022674    0.0012663 ✓
0.15581    1.2227    0.00026745    0.00025698    0.00079019    0.0021024 ✓
0.0028489    0.0014827    6.9961e-05    8.8267e-05    1.7063e-06    8.7104e-05 ✓
2.9337e-05    0.0038352    8.8172e-05    0.028262    6.2536e-05    0.17821 ✓
0.00011945    8.7104e-05    0.0006462    0.00014765    0.0039059    0.0095138 ✓
0.00023561    0.0014465    6.512e-06    0.0014986    8.9782e-05    0.015815 ✓
0.0014394    0.00015917    0.21054    0.0011019    0.0014986    0.0034546 ✓
0.0024643    9.9404e-07    0.0048021    5.3102e-07    0.00018863    1.1445e-07 ✓

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6.4753e-07	9.168e-09	2.2536e-07	6.9499e-07	0.00019341	2.7183e-07 ✓
9.4696e-06	5.204e-05	0.00010077	1.33e-07	2.2536e-07	1.3741e-07 ✓
0.00019385	2.8467e-07	7.1788e-05	1.0128e-08	6.4753e-07	3.3265e-10 ✓
1.9706e-08	2.3863e-07	7.2309e-05	5.7147e-08	5.7198e-05	1.1554e-08 ✓
1.9706e-08	3.2431e-07	0.0012739	4.5066e-06	0.0011723	2.2207e-08 ✓
6.4753e-07	7.6339e-09	4.5761e-08	5.2106e-07	0.0011702	7.4627e-08 ✓
2.7146e-08	4.5761e-08	0.00285	0.089962	0.31111	0.34376 ✓
3.0707	0.42143	1.315	2.8263	0.32063	9 ✓
0.11111	10.263	73.797	327.12	180.6	0 ✓
0	0	0	0	0	0.25 ✓
109.55	109.51	1.3778	0	0	0 ✓
0	0	0	0	0	4.3516 ✓
270.81	1634.9	2308.4	0	0	
0.0006727	0.012854	0.00050104	0.00016217	7.0284e-05	0.00023916 ✓
0.00021111	0.013728	0.00013307	0.030831	0.023122	0.0015179 ✓
0.1506	1.2209	0.00033381	0.00023916	0.00064045	0.002002 ✓
0.0022089	0.00083014	6.4922e-05	0.00010891	1.2591e-06	0.0002146 ✓
2.8777e-05	0.0035745	8.5633e-05	0.021114	5.1216e-05	0.18408 ✓
0.00015029	0.0002146	0.00057988	0.00026419	0.0059131	0.012423 ✓
0.00024414	0.0021391	7.3876e-06	0.0017426	0.0001035	0.014981 ✓
0.0020977	0.00024178	0.19424	0.0016123	0.0017426	0.0049578 ✓
0.0039016	9.7064e-07	0.0045944	6.3199e-07	0.00019741	1.0485e-07 ✓
6.9485e-07	9.8826e-09	2.0914e-07	8.4053e-07	0.00019977	2.5522e-07 ✓
1.0739e-05	5.6146e-05	0.00013533	1.2362e-07	2.0914e-07	8.372e-08 ✓
7.1881e-05	3.1061e-07	0.00011222	1.4626e-08	6.9485e-07	3.2418e-10 ✓
2.9495e-08	1.3751e-07	0.000112	6.3854e-08	4.7466e-05	1.66e-08 ✓
2.9495e-08	3.0256e-07	0.0022582	9.0319e-06	0.0023627	2.3018e-08 ✓
6.9485e-07	1.5439e-08	4.5878e-08	7.4806e-07	0.002363	5.9311e-08 ✓
2.7098e-08	4.5878e-08	0.002651	0.17606	0.37143	0.35507 ✓
10.95	0.98016	1.1188	2.9517	0.2373	8.0278 ✓
0.11111	8.9206	96.713	335.83	193.83	0 ✓
0	0	0	0	0	0 ✓
115.17	114.68	0.69444	0	0	0 ✓
0	0	0	0	0	6.123 ✓
484.86	1159.5	2623.4	1.2087	0	
0.0014066	0.017605	0.0005675	0.00057171	0.00015622	0.00023634 ✓
0.00030402	0.020866	0.00043578	0.012759	0.01067	0.0021955 ✓
0.098602	0.20101	0.0013149	0.00023634	0.0047383	0.0011616 ✓
0.0057387	0.0030525	0.00017086	0.00021225	1.2631e-05	0.00023857 ✓
0.00010693	0.010454	0.00023067	0.033579	0.0004354	0.046221 ✓
0.00048204	0.00023857	0.0020153	0.00066969	0.0033345	0.019924 ✓
0.00021721	0.00020155	1.6804e-05	0.00042025	0.00013877	0.026906 ✓
0.00021955	0.00071311	0.088915	0.00024156	0.00042025	0.001017 ✓
0.00070999	1.1633e-06	0.013493	2.0712e-06	0.00068751	2.0411e-07 ✓
2.3538e-06	4.2297e-08	4.3761e-07	9.1269e-07	0.00069743	6.3371e-07 ✓
6.5141e-05	0.00017854	0.010482	2.6503e-07	4.3761e-07	3.2856e-07 ✓
0.00075458	8.045e-07	0.00021602	3.3305e-08	2.3538e-06	1.0156e-09 ✓
6.7702e-08	5.5527e-07	0.00021676	2.3611e-07	0.0085409	3.8009e-08 ✓
6.7702e-08	4.5744e-07	0.00090014	1.1098e-06	0.00018833	4.6511e-08 ✓

2.3538e-06	2.665e-10	9.2457e-08	7.6494e-07	0.00019072	1.1808e-07 ✓
5.6012e-08	9.2457e-08	0.014189	0.19186	0.36429	0.05655 ✓
6.3448	0.90397	0.98788	1.4722	0.30714	9 ✓
0.13571	19.625	246.38	468.54	90.237	28.286 ✓
30.218	0	0	0	0	12.8 ✓
152.71	198.54	10.593	0	0	0 ✓
0	0	0.27302	3.2087	24.743	119.28 ✓
204.92	205.25	1.4063	0	0	
0.0014066	0.017605	0.0005675	0.00057171	0.00015622	0.00023634 ✓
0.00030402	0.020866	0.00043578	0.012759	0.01067	0.0021955 ✓
0.098602	0.20101	0.0013149	0.00023634	0.0047383	0.0011616 ✓
0.0057387	0.0030525	0.00017086	0.00021225	1.2631e-05	0.00023857 ✓
0.00010693	0.010454	0.00023067	0.033579	0.0004354	0.046221 ✓
0.00048204	0.00023857	0.0020153	0.00066969	0.0033345	0.019924 ✓
0.00021721	0.00020155	1.6804e-05	0.00042025	0.00013877	0.026906 ✓
0.00021955	0.00071311	0.088915	0.00024156	0.00042025	0.001017 ✓
0.00070999	1.1633e-06	0.013493	2.0712e-06	0.00068751	2.0411e-07 ✓
2.3538e-06	4.2297e-08	4.3761e-07	9.1269e-07	0.00069743	6.3371e-07 ✓
6.5141e-05	0.00017854	0.010482	2.6503e-07	4.3761e-07	3.2856e-07 ✓
0.00075458	8.045e-07	0.00021602	3.3305e-08	2.3538e-06	1.0156e-09 ✓
6.7702e-08	5.5527e-07	0.00021676	2.3611e-07	0.0085409	3.8009e-08 ✓
6.7702e-08	4.5744e-07	0.00090014	1.1098e-06	0.00018833	4.6511e-08 ✓
2.3538e-06	2.665e-10	9.2457e-08	7.6494e-07	0.00019072	1.1808e-07 ✓
5.6012e-08	9.2457e-08	0.014189	0.19186	0.36429	0.05655 ✓
6.3448	0.90397	0.98788	1.4722	0.30714	9 ✓
0.13571	19.625	246.38	468.54	90.237	28.286 ✓
30.218	0	0	0	0	12.8 ✓
152.71	198.54	10.593	0	0	0 ✓
0	0	0.27302	3.2087	24.743	119.28 ✓
204.92	205.25	1.4063	0	0	
0.0021496	0.015073	0.0010101	0.00098325	0.000313	0.0011062 ✓
0.0008137	0.021695	0.00060798	0.0054695	0.0081397	0.0052066 ✓
0.025382	0.09531	0.0029551	0.0011062	0.0030442	0.0052324 ✓
0.0024381	0.0039658	0.00016683	0.00039238	7.0975e-06	0.00052441 ✓
0.00014961	0.0064188	0.00043284	0.023474	0.00099631	0.053249 ✓
0.00080124	0.00052441	0.0011606	0.0015632	0.0050258	0.022134 ✓
0.00045465	0.0034224	3.9024e-05	0.004047	0.0002729	0.026059 ✓
0.00054474	0.0010855	0.096285	0.0029029	0.004047	0.004914 ✓
0.0095524	1.3495e-06	0.020303	2.2702e-06	0.00098884	2.2623e-07 ✓
2.618e-06	4.6524e-08	4.8344e-07	1.0917e-06	0.00099957	9.4847e-07 ✓
6.7954e-05	0.00019771	0.033392	2.8848e-07	4.8344e-07	2.7842e-07 ✓
0.00074619	1.5168e-06	0.00037423	3.0491e-08	2.618e-06	1.5469e-09 ✓
5.7501e-08	3.4287e-07	0.00037541	1.3895e-07	0.024474	3.4824e-08 ✓
5.7501e-08	5.9729e-07	0.0017911	2.1969e-06	0.00020383	6.703e-08 ✓
2.618e-06	6.7377e-10	1.3109e-07	1.0436e-06	0.00020394	1.724e-07 ✓
7.8116e-08	1.3109e-07	0.018601	0.25546	0.59286	0.21392 ✓
2.4668	0.35159	0.58907	1.6948	0.2373	8.0278 ✓
0.25	85.883	194.75	371.51	98.292	65.037 ✓
39.913	0	0	0	0	0.69444 ✓

574.16	561.97	3.6571	0	0	0 ✓
0	0	1.4063	6.8659	607.27	440.66 ✓
638.74	1497.6	0	0	0	
0.0016389	0.01238	0.0006796	0.00058787	0.00021219	0.00060482 ✓
0.0004935	0.017269	0.00043914	0.0033356	0.0051389	0.0029189 ✓
0.035685	0.1248	0.00168	0.00060482	0.0021124	0.0026314 ✓
0.0020507	0.00098617	5.9322e-05	0.00013934	2.8221e-06	0.00037874 ✓
5.6171e-05	0.0033014	0.00012892	0.023584	0.00045399	0.035543 ✓
0.00028099	0.00037874	0.00073005	0.0017286	0.0011711	0.015501 ✓
0.00014319	0.00063606	1.0924e-05	0.00089858	7.2041e-05	0.015837 ✓
0.0001937	0.00039119	0.084289	0.00069875	0.00089858	0.00075477 ✓
0.0042873	1.7914e-06	0.014706	1.9106e-06	0.00068955	2.1087e-07 ✓
2.1874e-06	3.9425e-08	5.1515e-07	1.1462e-06	0.00070027	9.539e-07 ✓
5.5202e-05	0.00012724	0.017272	3.0878e-07	5.1515e-07	2.0503e-07 ✓
0.00024522	5.6959e-07	0.00015318	2.7499e-08	2.1874e-06	7.1503e-10 ✓
6.2813e-08	2.5422e-07	0.00015414	1.6862e-07	0.0098881	3.6578e-08 ✓
6.2813e-08	6.9794e-07	0.00090165	9.6318e-07	0.00014572	6.6938e-08 ✓
2.1874e-06	2.2123e-10	1.4095e-07	8.3596e-07	0.00014787	1.6977e-07 ✓
8.2303e-08	1.4095e-07	0.012371	0.3075	0.64444	0.075106 ✓
1.4342	0.34286	0.45535	1.1261	0.2754	9 ✓
0.11111	31.216	140.88	235.46	55.78	25.856 ✓
34.971	0	0	0	0	0 ✓
191	189.05	1.6214	0	0	0 ✓
0	0	0	8.0921	188.9	78.199 ✓
167.42	64.114	0	0	0	
0.0052985	0.01688	0.00092269	0.0010187	0.00017836	0.0010262 ✓
0.00039912	0.024048	0.0010583	0.011499	0.0038769	0.0015246 ✓
0.12037	0.48918	0.0010667	0.0010262	0.0034792	0.0029511 ✓
0.0019243	0.0069144	0.00069617	0.00020924	5.6185e-05	0.00046243 ✓
0.00054705	0.013758	0.0004988	0.061713	0.0021792	0.020292 ✓
0.0010325	0.00046243	0.0015415	0.0025042	0.0061748	0.019815 ✓
0.00052864	0.00064445	4.3041e-05	0.00037609	0.00034157	0.034888 ✓
0.00063269	0.0014873	0.09513	0.00018986	0.00037609	0.0040988 ✓
0.0049235	1.0923e-06	0.011059	3.5408e-06	0.00090375	1.3643e-07 ✓
3.5407e-06	6.6755e-08	2.5404e-07	1.0909e-06	0.00090556	3.6507e-07 ✓
0.00012718	0.00043359	0.015583	1.5478e-07	2.5404e-07	3.6673e-07 ✓
0.0018436	1.4959e-06	0.00018023	3.915e-08	3.5407e-06	1.6221e-09 ✓
8.1891e-08	7.2732e-07	0.00017976	1.7535e-07	0.019372	4.7607e-08 ✓
8.1891e-08	3.8335e-07	0.00135	2.2966e-06	0.00021571	3.8131e-08 ✓
3.5407e-06	6.1062e-10	7.8922e-08	6.3785e-07	0.00021673	8.2447e-08 ✓
4.7058e-08	7.8922e-08	0.038493	0.57316	0.91429	0.055414 ✓
3.0561	0.44683	0.76212	5.6344	0.63492	9 ✓
0.11111	0.69206	51.543	621.57	215.84	57.437 ✓
41.094	0	0	0	0	12.044 ✓
295.14	495.34	26.866	0	0	0 ✓
0	0	0	10.483	32.543	90.593 ✓
1095.2	1276.6	0.44444	0	0	
0.0067706	0.019081	0.0010405	0.00086758	0.00021052	0.00095362 ✓
0.00054464	0.0289	0.0009101	0.014885	0.0058848	0.0023503 ✓

0.11421	0.45929	0.0009772	0.00095362	0.0034277	0.0026612 ✓
0.0015952	0.014646	0.0008058	0.00073227	8.0347e-05	0.0011971 ✓
0.00048139	0.022363	0.0011454	0.046308	0.0015135	0.023585 ✓
0.0015961	0.0011971	0.0014394	0.0043968	0.003125	0.03168 ✓
0.00038641	0.00039681	3.576e-05	0.00040935	0.0002066	0.04446 ✓
0.00039584	0.0010388	0.12127	0.00014637	0.00040935	0.001985 ✓
0.0063969	1.1476e-06	0.013437	4.5495e-06	0.0010962	1.3685e-07 ✓
4.5726e-06	8.8002e-08	2.5222e-07	1.5859e-06	0.0011038	3.3375e-07 ✓
0.00014479	0.00066297	0.01218	1.5862e-07	2.5222e-07	9.4404e-07 ✓
0.0054577	4.8764e-06	0.00079633	5.6555e-08	4.5726e-06	5.8499e-09 ✓
1.0769e-07	1.7754e-06	0.00079668	2.4166e-07	0.015671	6.3699e-08 ✓
1.0769e-07	5.1384e-07	0.0014947	1.7099e-06	9.8677e-05	5.9298e-08 ✓
4.5726e-06	4.6096e-10	1.3998e-07	8.2067e-07	9.8723e-05	1.5937e-07 ✓
8.4323e-08	1.3998e-07	0.031311	0.40145	0.59921	0.11226 ✓
4.7972	0.52302	1.4105	4.3481	0.34921	8.0278 ✓
0.27302	2.9778	69.78	419.14	232.37	68.294 ✓
70.409	0	0	0	1	36.593 ✓
367.91	535.79	63.399	0	0	0 ✓
0	0	1.6825	7.2	31.635	101.85 ✓
537.68	574.33	0.48571	0	0	
0.0016839	0.010916	0.0012239	0.0018036	0.00041767	0.001556 ✓
0.00097036	0.013077	0.0011507	0.0043335	0.01897	0.0051574 ✓
0.0088321	0.037008	0.0051157	0.001556	0.0010673	0.0037847 ✓
0.0041471	0.015454	0.0016597	0.00090519	0.00032364	0.00091595 ✓
0.001351	0.025399	0.0017182	0.012004	0.0068226	0.022035 ✓
0.0034922	0.00091595	0.0034568	0.0068758	0.00163	0.026635 ✓
0.00050088	0.000495	3.4426e-05	0.00029383	0.00021898	0.029405 ✓
0.00030183	0.00065955	0.31679	0.00095146	0.00029383	0.0011756 ✓
0.0017538	2.0166e-06	0.016921	3.2408e-06	0.0012072	2.0476e-07 ✓
3.5289e-06	5.79e-08	5.5773e-07	1.3171e-06	0.0012091	1.6285e-06 ✓
0.00015694	0.010908	0.00030384	3.223e-07	5.5773e-07	9.059e-07 ✓
0.0047118	4.4851e-06	0.00062845	1.1504e-07	3.5289e-06	4.279e-09 ✓
2.4663e-07	1.3247e-06	0.0006315	3.6287e-07	0.0082289	1.4699e-07 ✓
2.4663e-07	7.6383e-07	0.00098508	1.5093e-06	0.00062842	8.1667e-08 ✓
3.5289e-06	4.2826e-09	2.1762e-07	1.2214e-06	0.00063248	4.6716e-07 ✓
1.2457e-07	2.1762e-07	0.052779	0.14592	0.75159	0.033757 ✓
2.5367	0.70714	2.7364	2.3277	0.42143	9 ✓
14.485	494.89	114.46	141.28	85.99	100.43 ✓
1.8373	0	0	0	0.11111	46.879 ✓
253.89	1079.7	443.95	4.0921	0	0 ✓
0	0	0	0	3.6349	22.504 ✓
200.08	349.21	504.99	46.273	0	
0.0042445	0.052644	0.0017904	0.0026536	0.0003018	0.0025233 ✓
0.00085605	0.068958	0.0020158	0.022861	0.022846	0.0026824 ✓
0.17768	2.4549	0.0048054	0.0025233	0.0008931	0.0018962 ✓
0.015239	0.0074411	0.0015276	0.00051586	0.00095134	0.00088461 ✓
0.0013132	0.027916	0.0017038	0.01822	0.0088065	0.0085581 ✓
0.0043939	0.00088461	0.0052375	0.0057998	0.0016306	0.05145 ✓
0.00071905	0.000356	6.126e-05	0.00037841	0.00030019	0.055367 ✓

Standard Deviation Statistics:

[illegible]



[illegible]

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0.000252      0.001014      0.028731      0.00031955      0.0085782      0.00019813 ✓
0.000252      0.00034158      0.014789      0.0010428      0.019702      0.00014083 ✓
0.0016456      4.7228e-05      0.00019536      0.00058494      0.019729      0.00025331 ✓
0.00015181      0.00019536      0.12997      1.1071      1.3546      0.62949 ✓
2.0743      0.6088      0.8418      1.8336      0.64488      3 ✓
0.33333      11.157      20.877      30.284      19.04      0.36839 ✓
0      0      0      0      0      4.7035 ✓
19.56      22.344      2.613      0      0      0 ✓
0      0      0      0      0      2.004 ✓
14.528      12.854      21.384      0      0
    0.048494      0.11727      0.018102      0.025787      0.0072958      0.023046 ✓
0.0087787      0.11618      0.02378      0.051899      0.06076      0.026468 ✓
0.44703      0.87862      0.020692      0.023046      0.052236      0.025273 ✓
0.058636      0.039727      0.017344      0.019005      0.0052453      0.020735 ✓
0.017496      0.071794      0.021732      0.10046      0.042149      0.17811 ✓
0.02283      0.020735      0.046181      0.088365      0.028538      0.084921 ✓
0.011856      0.021201      0.0032795      0.027082      0.01088      0.097028 ✓
0.013414      0.024715      0.11823      0.019936      0.027082      0.020907 ✓
0.054425      0.00091223      0.082888      0.0015423      0.026701      0.00042923 ✓
0.0016528      0.00020063      0.00060961      0.00076898      0.027062      0.00079705 ✓
0.009043      0.0055697      0.11714      0.00046717      0.00060961      0.00052005 ✓
0.026766      0.0012328      0.018234      0.00026355      0.0016528      6.7987e-05 ✓
0.0003899      0.00046413      0.018249      0.00047524      0.09992      0.00030157 ✓
0.0003899      0.00044771      0.02181      0.00089706      0.016746      0.00022072 ✓
0.0016528      1.8156e-05      0.00031961      0.00060868      0.016802      0.00034978 ✓
0.00024931      0.00031961      0.14332      0.51728      0.69179      0.43748 ✓
1.0907      0.59894      0.34272      1.082      0.5599      3 ✓
0.16667      0.86694      14.392      12.65      7.5786      7.4084 ✓
0      0      0      0      0      0 ✓
0      0      12.572      20.963      15.842      0 ✓
0      0      0      0.66667      3.8507      14.803 ✓
22.397      22.021      0      0      0
    0.050532      0.11841      0.022714      0.018794      0.010209      0.021451 ✓
0.014182      0.13435      0.017376      0.070504      0.1205      0.034729 ✓
0.36669      0.66731      0.024388      0.021451      0.062684      0.030793 ✓
0.066246      0.036827      0.012282      0.011918      0.004524      0.021859 ✓
0.013452      0.084909      0.012492      0.16867      0.029567      0.12116 ✓
0.015344      0.021859      0.028609      0.15463      0.051089      0.16982 ✓
0.014681      0.02194      0.0042275      0.026727      0.011134      0.18286 ✓
0.015447      0.028087      0.47904      0.0097524      0.026727      0.035673 ✓
0.029072      0.0009515      0.084706      0.0010813      0.018844      0.00032474 ✓
0.0011455      0.0001465      0.00046253      0.0009431      0.019006      0.00068338 ✓
0.0056834      0.0058533      0.1166      0.00035091      0.00046253      0.00069641 ✓
0.018617      0.00068078      0.011731      0.00025394      0.0011455      4.1576e-05 ✓
0.00038403      0.00069736      0.011741      0.00048661      0.097446      0.00029607 ✓
0.00038403      0.00088028      0.037843      0.0010864      0.013599      0.00021614 ✓
0.0011455      1.7071e-05      0.00034074      0.0011      0.01368      0.00040902 ✓
0.00026529      0.00034074      0.095158      0.54619      0.82038      0.3106 ✓
1.0815      0.54917      1.5807      1.3491      0.66845      2.8333 ✓

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0.33333      1.2225      11.513      15.424      9.059      7.0321 ✓
0.83333      0      0      0      0      0 ✓
0      0      8.5101      18.849      15.098      0.89443 ✓
0      0      1.8048      3.4763      8.7183      13.02 ✓
12.275      13.342      0.33333      0      0
0.079396      0.099772      0.039533      0.013472      0.020962      0.015368 ✓
0.033999      0.16113      0.018272      0.05483      0.058533      0.073573 ✓
0.13755      0.34339      0.035173      0.015368      0.052796      0.047573 ✓
0.040206      0.054742      0.018299      0.016436      0.0042429      0.017169 ✓
0.015498      0.083502      0.015143      0.07754      0.030263      0.20451 ✓
0.026323      0.017169      0.032506      0.019513      0.049809      0.019664 ✓
0.012379      0.025056      0.0032111      0.030636      0.0087809      0.058902 ✓
0.026684      0.01326      0.17324      0.028187      0.030636      0.047798 ✓
0.059925      0.0011086      0.083916      0.00084234      0.0113      0.00037613 ✓
0.0008861      0.00010622      0.00051239      0.0011561      0.011472      0.00066883 ✓
0.0049922      0.0017885      0.015884      0.00039871      0.00051239      0.00049694 ✓
0.02141      0.00099926      0.017097      0.0001498      0.0008861      5.0096e-05 ✓
0.0002016      0.00056906      0.017083      0.0002931      0.016524      0.00015769 ✓
0.0002016      0.00053916      0.036189      0.001693      0.025809      0.0002459 ✓
0.0008861      4.9509e-05      0.00034864      0.00061509      0.025886      0.00039564 ✓
0.00026773      0.00034864      0.10615      0.67643      0.87105      0.3473 ✓
1.3482      0.56625      0.15836      1.2331      0.54917      3 ✓
1.9443      16.39      16.078      13.258      9.3038      14.717 ✓
0.50709      0      0      0      0      0 ✓
0      0      25.526      27.881      9.8022      0 ✓
0      0      0      0      0      7.7428 ✓
27.461      15.663      14.828      0      0
0.038861      0.10523      0.023433      0.01886      0.012654      0.020328 ✓
0.019797      0.1103      0.01454      0.099796      0.10823      0.043024 ✓
0.15557      0.27281      0.031105      0.020328      0.040816      0.049044 ✓
0.074371      0.070841      0.018204      0.015133      0.0054177      0.015012 ✓
0.01382      0.13105      0.017945      0.11017      0.02781      0.19922 ✓
0.015023      0.015012      0.054551      0.025064      0.071534      0.0327 ✓
0.013416      0.018664      0.0044722      0.018843      0.0096152      0.078621 ✓
0.021016      0.020364      0.17306      0.018549      0.018843      0.05656 ✓
0.068153      0.0011644      0.090647      0.0011513      0.023016      0.00032617 ✓
0.001241      0.00014714      0.00064684      0.0009649      0.023011      0.00075877 ✓
0.0048845      0.0056523      0.035615      0.00049674      0.00064684      0.00076072 ✓
0.042298      0.0011518      0.015257      0.00020028      0.001241      6.052e-05 ✓
0.00028715      0.00097238      0.015285      0.00039782      0.026875      0.00021788 ✓
0.00028715      0.00071227      0.038919      0.0013621      0.01959      0.0002137 ✓
0.001241      4.1698e-05      0.00030587      0.00090079      0.019653      0.00047595 ✓
0.0002323      0.00030587      0.061526      0.35586      0.54917      0.2694 ✓
1.0012      0.37796      0.25917      1.1312      0.54263      2.9999 ✓
3.8582      10.576      7.8236      12.082      6.5965      6.7034 ✓
0.5      0      0      0      0      0 ✓
0      1.1616      6.6093      11.775      10.713      1 ✓
0      0      0      0      1.1667      7.9516 ✓
12.844      13.138      8.949      2      1

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0.031878    0.14902    0.02761    0.014425    0.010004    0.013373 ✓
0.013226    0.15214    0.011236    0.092479    0.12905    0.020022 ✓
0.64148    1.0433    0.012704    0.013373    0.036805    0.011175 ✓
0.040317    0.12092    0.021487    0.019295    0.0056962    0.019282 ✓
0.017312    0.12679    0.023672    0.17809    0.033427    0.29206 ✓
0.032785    0.019282    0.021217    0.055155    0.035749    0.20687 ✓
0.018812    0.022751    0.0068536    0.025141    0.010929    0.19883 ✓
0.018139    0.024168    0.46274    0.015025    0.025141    0.030154 ✓
0.054926    0.00097945    0.087091    0.00082861    0.016393    0.00032069 ✓
0.00090622    0.00011375    0.00045248    0.00088999    0.016575    0.00048052 ✓
0.0051256    0.008545    0.068401    0.00034768    0.00045248    0.00056765 ✓
0.037292    0.0014293    0.019615    0.00021312    0.00090622    7.0577e-05 ✓
0.00034451    0.00071573    0.0196    0.00042994    0.063301    0.00026736 ✓
0.00034451    0.00072179    0.040158    0.0013114    0.02619    0.00021122 ✓
0.00090622    3.8406e-05    0.00034913    0.0010195    0.02619    0.00040597 ✓
0.0002677    0.00034913    0.077973    0.84319    0.99841    0.64351 ✓
1.2432    0.5542    1.2255    1.453    0.39841    2.8333 ✓
0.33333    0.73679    11.363    13.41    7.8387    1.2734 ✓
0    0    0    0    1.4218    14.624 ✓
19.919    14.731    0    0    0    0 ✓
0    0.33333    1    1.786    4.2527    16.946 ✓
12.33    10.291    12.023    0    0
0.033448    0.14754    0.02859    0.01676    0.010885    0.023298 ✓
0.01322    0.14898    0.016483    0.07781    0.087909    0.019941 ✓
0.65697    1.1917    0.022907    0.023298    0.056054    0.028481 ✓
0.040985    0.092108    0.021106    0.025508    0.006339    0.024827 ✓
0.018567    0.10085    0.02959    0.12845    0.039265    0.23739 ✓
0.04179    0.024827    0.027942    0.040862    0.051572    0.13979 ✓
0.019022    0.023019    0.0065876    0.021979    0.018454    0.13572 ✓
0.023968    0.050114    0.27404    0.01884    0.021979    0.04266 ✓
0.096601    0.0011524    0.086705    0.0011065    0.018309    0.00031056 ✓
0.0011198    0.00014553    0.00060234    0.00090458    0.018419    0.00067683 ✓
0.0064307    0.014015    0.057333    0.00046388    0.00060234    0.00058961 ✓
0.049877    0.0019708    0.026787    0.00023193    0.0011198    8.4924e-05 ✓
0.0003292    0.00074066    0.026814    0.00040603    0.050763    0.00025188 ✓
0.0003292    0.00074051    0.034269    0.0012438    0.022947    0.00029449 ✓
0.0011198    3.9444e-05    0.00041887    0.0009386    0.022963    0.00046399 ✓
0.00032141    0.00041887    0.091427    1.13    1.2536    0.44698 ✓
1.4327    0.50709    0.57945    1.1075    0.51331    3 ✓
0.16667    0.46462    14.059    17.725    13.68    5.5362 ✓
0    0    0    0    0.33333    13.233 ✓
19.15    18.623    0    0    0    0 ✓
0    0    0    1.2225    4.0708    17.769 ✓
23.095    14.525    19.807    0.16667    0
0.060012    0.12641    0.02904    0.026199    0.010629    0.027207 ✓
0.015986    0.14385    0.026872    0.19349    0.13451    0.02438 ✓
0.47904    1.142    0.029853    0.027207    0.033747    0.026676 ✓
0.057161    0.064094    0.021142    0.009856    0.0038982    0.010718 ✓
0.017057    0.09926    0.015064    0.20594    0.028086    0.33363 ✓

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0.018406      0.010718      0.035127      0.028127      0.046462      0.067578 ✓
0.0087927    0.01219      0.002361      0.012805      0.0070685     0.09853 ✓
0.010233    0.015001      0.14621      0.014859      0.012805      0.02908 ✓
0.02566      0.001136      0.085348      0.0017039     0.027042      0.00033824 ✓
0.0016823    0.00020786     0.00047665     0.0011174     0.027041      0.00054067 ✓
0.0090298    0.029953      0.0099032     0.00036557     0.00047665     0.00050103 ✓
0.027125    0.00095378     0.0097528     0.00014578     0.0016823     2.1269e-05 ✓
0.00020943   0.00066173     0.0097352     0.00025004     0.010677      0.00015973 ✓
0.00020943   0.00058607     0.017009      0.00056338     0.011726      0.00020309 ✓
0.0016823    2.6272e-05     0.00028739     0.00072701     0.011779      0.00035487 ✓
0.00022058   0.00028739     0.14304       0.89848       0.93052       0.81323 ✓
2.0043       0.63746       0.3344       2.3927       0.63932       2.8333 ✓
0.33333      0.79682       24.189       17.536       21.282       0.66667 ✓
0            0            0            0            0            0 ✓
18.85       19.787       3.6527       0            0            0 ✓
0            0            0            0            0            2.3236 ✓
9.68        8.8685       9.0368       1.5877       0            0
      0.06806      0.18203      0.042816     0.043679     0.01736      0.038979 ✓
0.030067    0.18237      0.038936     0.14701      0.20587      0.030481 ✓
0.54157     1.3212       0.036541     0.038979     0.045745     0.062235 ✓
0.06588     0.084203     0.023115     0.015426     0.0058975     0.017371 ✓
0.020785     0.11726      0.02266      0.20367      0.042043     0.30094 ✓
0.030414     0.017371     0.042655     0.049805     0.15021      0.11356 ✓
0.02615     0.035899     0.009798     0.03353      0.01866      0.18541 ✓
0.040242     0.029027     0.38083      0.024829     0.03353      0.1178 ✓
0.043903     0.0010016     0.16209      0.0027935     0.051476     0.00031351 ✓
0.0028473    0.00036092     0.00043665     0.0011619     0.051521     0.00047913 ✓
0.011953     0.059333     0.020021     0.00034027     0.00043665     0.00061102 ✓
0.040063     0.0015248     0.017416     0.00018891     0.0028473     3.1835e-05 ✓
0.00026039   0.00075349     0.01742      0.00043142     0.030505     0.00020057 ✓
0.00026039   0.00089706     0.0773       0.0028704     0.041297     0.0002251 ✓
0.0028473    0.00014455     0.00031392     0.0012195     0.041225     0.00045241 ✓
0.00024267   0.00031392     0.17505      0.50577      0.69693      0.56305 ✓
1.5281       0.5599       0.96406      1.7656       0.5599       4.0672 ✓
5.3739       2.7354       11.037       28.008       29.925       5.1704 ✓
0            0            0            0            0            0.60945 ✓
16.636      28.975       16.723       0.16667      0            0 ✓
0            0            0            0            2.2552      3.6344 ✓
16.472      19.08       18.994       5.053       3.4174
      0.021123     0.11581      0.022401     0.014187     0.0084068     0.016031 ✓
0.013704    0.11504      0.012134     0.1237       0.15058      0.035585 ✓
0.39473     1.1058       0.016354     0.016031     0.02811      0.045851 ✓
0.053375     0.038505     0.0083643     0.0093951     0.0013063     0.0093329 ✓
0.0054164     0.061929     0.00939      0.16811      0.007908      0.42215 ✓
0.010929     0.0093329     0.02542      0.012151     0.062497     0.097539 ✓
0.01535     0.038033     0.0025519     0.038712     0.0094753     0.12576 ✓
0.037939     0.012616     0.45884      0.033195     0.038712     0.058776 ✓
0.049641     0.00099701     0.069297     0.00072871     0.013734     0.00033831 ✓
0.00080469   9.575e-05     0.00047472     0.00083366     0.013907     0.00052138 ✓

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0.0030773      0.0072139      0.010038      0.00036469      0.00047472      0.00037069 ✓
0.013923      0.00053354      0.0084728      0.00010064      0.00080469      1.8239e-05 ✓
0.00014038      0.0004885      0.0085034      0.00023906      0.007563      0.00010749 ✓
0.00014038      0.00056948      0.035692      0.0021229      0.034239      0.00014902 ✓
0.00080469      8.7372e-05      0.00021392      0.00072184      0.034208      0.00027318 ✓
0.00016476      0.00021392      0.053385      0.29994      0.55777      0.58631 ✓
1.7523      0.64918      1.1467      1.6812      0.56625      3 ✓
0.33333      3.2037      8.5905      18.086      13.439      0 ✓
0      0      0      0      0      0.5 ✓
10.467      10.465      1.1738      0      0      0 ✓
0      0      0      0      0      2.086 ✓
16.456      40.434      48.046      0      0
    0.025937      0.11337      0.022384      0.012735      0.0083835      0.015465 ✓
0.01453      0.11717      0.011535      0.17559      0.15206      0.038961 ✓
0.38807      1.105      0.018271      0.015465      0.025307      0.044744 ✓
0.046999      0.028812      0.0080574      0.010436      0.0011221      0.014649 ✓
0.0053645      0.059787      0.0092538      0.14531      0.0071565      0.42905 ✓
0.012259      0.014649      0.024081      0.016254      0.076897      0.11146 ✓
0.015625      0.046251      0.002718      0.041744      0.010173      0.1224 ✓
0.0458      0.015549      0.44073      0.040153      0.041744      0.070412 ✓
0.062463      0.00098521      0.067782      0.00079498      0.01405      0.00032381 ✓
0.00083358      9.9411e-05      0.00045732      0.0009168      0.014134      0.00050519 ✓
0.003277      0.0074931      0.011633      0.00035159      0.00045732      0.00028934 ✓
0.0084783      0.00055732      0.010593      0.00012094      0.00083358      1.8005e-05 ✓
0.00017174      0.00037082      0.010583      0.00025269      0.0068896      0.00012884 ✓
0.00017174      0.00055006      0.047521      0.0030053      0.048607      0.00015172 ✓
0.00083358      0.00012426      0.00021419      0.00086491      0.04861      0.00024354 ✓
0.00016462      0.00021419      0.051488      0.4196      0.60945      0.59588 ✓
3.3091      0.99003      1.0577      1.7181      0.48714      2.8333 ✓
0.33333      2.9867      9.8343      18.326      13.922      0 ✓
0      0      0      0      0      0 ✓
10.732      10.709      0.83333      0      0      0 ✓
0      0      0      0      0      2.4745 ✓
22.019      34.051      51.219      1.0994      0
    0.037505      0.13268      0.023822      0.023911      0.012499      0.015373 ✓
0.017436      0.14445      0.020875      0.11295      0.1033      0.046856 ✓
0.31401      0.44834      0.036262      0.015373      0.068835      0.034082 ✓
0.075754      0.055249      0.013071      0.014569      0.003554      0.015446 ✓
0.010341      0.10225      0.015188      0.18325      0.020866      0.21499 ✓
0.021955      0.015446      0.044893      0.025878      0.057745      0.14115 ✓
0.014738      0.014197      0.0040992      0.0205      0.01178      0.16403 ✓
0.014817      0.026704      0.29819      0.015542      0.0205      0.03189 ✓
0.026646      0.0010785      0.11616      0.0014392      0.02622      0.00045179 ✓
0.0015342      0.00020566      0.00066152      0.00095535      0.026409      0.00079606 ✓
0.008071      0.013362      0.10238      0.00051481      0.00066152      0.0005732 ✓
0.02747      0.00089694      0.014698      0.0001825      0.0015342      3.1869e-05 ✓
0.0002602      0.00074517      0.014723      0.00048591      0.092417      0.00019496 ✓
0.0002602      0.00067634      0.030002      0.0010535      0.013723      0.00021567 ✓
0.0015342      1.6325e-05      0.00030407      0.00087461      0.01381      0.00034363 ✓

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0.00023667    0.00030407    0.11912    0.43802    0.60356    0.2378 ✓
2.5189    0.95077    0.99392    1.2134    0.5542    3 ✓
0.36839    4.4301    15.696    21.646    9.4993    5.3184 ✓
5.4971    0    0    0    0    3.5777 ✓
12.358    14.09    3.2547    0    0    0 ✓
0    0    0.52251    1.7913    4.9742    10.921 ✓
14.315    14.326    1.1859    0    0
    0.037505    0.13268    0.023822    0.023911    0.012499    0.015373 ✓
0.017436    0.14445    0.020875    0.11295    0.1033    0.046856 ✓
0.31401    0.44834    0.036262    0.015373    0.068835    0.034082 ✓
0.075754    0.055249    0.013071    0.014569    0.003554    0.015446 ✓
0.010341    0.10225    0.015188    0.18325    0.020866    0.21499 ✓
0.021955    0.015446    0.044893    0.025878    0.057745    0.14115 ✓
0.014738    0.014197    0.0040992    0.0205    0.01178    0.16403 ✓
0.014817    0.026704    0.29819    0.015542    0.0205    0.03189 ✓
0.026646    0.0010785    0.11616    0.0014392    0.02622    0.00045179 ✓
0.0015342    0.00020566    0.00066152    0.00095535    0.026409    0.00079606 ✓
0.008071    0.013362    0.10238    0.00051481    0.00066152    0.0005732 ✓
0.02747    0.00089694    0.014698    0.0001825    0.0015342    3.1869e-05 ✓
0.0002602    0.00074517    0.014723    0.00048591    0.092417    0.00019496 ✓
0.0002602    0.00067634    0.030002    0.0010535    0.013723    0.00021567 ✓
0.0015342    1.6325e-05    0.00030407    0.00087461    0.01381    0.00034363 ✓
0.00023667    0.00030407    0.11912    0.43802    0.60356    0.2378 ✓
2.5189    0.95077    0.99392    1.2134    0.5542    3 ✓
0.36839    4.4301    15.696    21.646    9.4993    5.3184 ✓
5.4971    0    0    0    0    3.5777 ✓
12.358    14.09    3.2547    0    0    0 ✓
0    0    0.52251    1.7913    4.9742    10.921 ✓
14.315    14.326    1.1859    0    0
    0.046364    0.12277    0.031781    0.031357    0.017692    0.03326 ✓
0.028525    0.14729    0.024657    0.073956    0.09022    0.072157 ✓
0.15932    0.30872    0.054361    0.03326    0.055174    0.072335 ✓
0.049377    0.062975    0.012916    0.019809    0.0026641    0.0229 ✓
0.012231    0.080118    0.020805    0.15321    0.031564    0.23076 ✓
0.028306    0.0229    0.034067    0.039537    0.070893    0.14878 ✓
0.021323    0.058502    0.006247    0.063616    0.01652    0.16143 ✓
0.02334    0.032947    0.3103    0.053879    0.063616    0.0701 ✓
0.097736    0.0011617    0.14249    0.0015067    0.031446    0.00047563 ✓
0.001618    0.0002157    0.0006953    0.0010449    0.031616    0.00097389 ✓
0.0082434    0.014061    0.18273    0.0005371    0.0006953    0.00052765 ✓
0.027316    0.0012316    0.019345    0.00017462    0.001618    3.9331e-05 ✓
0.00023979    0.00058555    0.019375    0.00037276    0.15644    0.00018661 ✓
0.00023979    0.00077284    0.042321    0.0014822    0.014277    0.0002589 ✓
0.001618    2.5957e-05    0.00036206    0.0010216    0.014281    0.00041521 ✓
0.00027949    0.00036206    0.13639    0.50544    0.76997    0.46251 ✓
1.5706    0.59295    0.76751    1.3019    0.48714    2.8333 ✓
0.5    9.2673    13.955    19.275    9.9142    8.0646 ✓
6.3177    0    0    0    0    0.83333 ✓
23.962    23.706    1.9124    0    0    0 ✓

```

0	0	1.1859	2.6203	24.643	20.992 ✓
25.273	38.699	0	0	0	
0.040484	0.11127	0.026069	0.024246	0.014567	0.024593 ✓
0.022215	0.13141	0.020956	0.057755	0.071686	0.054027 ✓
0.18891	0.35327	0.040988	0.024593	0.045961	0.051298 ✓
0.045285	0.031403	0.0077021	0.011804	0.0016799	0.019461 ✓
0.0074947	0.057457	0.011354	0.15357	0.021307	0.18853 ✓
0.016763	0.019461	0.027019	0.041576	0.034221	0.1245 ✓
0.011966	0.02522	0.0033052	0.029976	0.0084877	0.12584 ✓
0.013918	0.019779	0.29033	0.026434	0.029976	0.027473 ✓
0.065478	0.0013384	0.12127	0.0013823	0.026259	0.00045921 ✓
0.001479	0.00019856	0.00071774	0.0010706	0.026463	0.00097668 ✓
0.0074298	0.01128	0.13142	0.00055568	0.00071774	0.00045281 ✓
0.01566	0.00075471	0.012376	0.00016583	0.001479	2.674e-05 ✓
0.00025062	0.0005042	0.012415	0.00041064	0.099439	0.00019125 ✓
0.00025062	0.00083543	0.030028	0.00098142	0.012072	0.00025872 ✓
0.001479	1.4874e-05	0.00037543	0.00091431	0.01216	0.00041204 ✓
0.00028688	0.00037543	0.11122	0.55452	0.80277	0.27406 ✓
1.1976	0.58554	0.6748	1.0612	0.52478	3 ✓
0.33333	5.5871	11.869	15.345	7.4686	5.0849 ✓
5.9137	0	0	0	0	0 ✓
13.82	13.75	1.2734	0	0	0 ✓
0	0	0	2.8447	13.744	8.843 ✓
12.939	8.0071	0	0	0	
0.072791	0.12992	0.030376	0.031918	0.013355	0.032035 ✓
0.019978	0.15507	0.032531	0.10724	0.062265	0.039046 ✓
0.34694	0.69941	0.03266	0.032035	0.058985	0.054324 ✓
0.043867	0.083153	0.026385	0.014465	0.0074956	0.021504 ✓
0.023389	0.11729	0.022334	0.24842	0.046682	0.14245 ✓
0.032133	0.021504	0.039262	0.050042	0.07858	0.14077 ✓
0.022992	0.025386	0.0065606	0.019393	0.018482	0.18678 ✓
0.025153	0.038566	0.30843	0.013779	0.019393	0.064022 ✓
0.070168	0.0010452	0.10516	0.0018817	0.030062	0.00036937 ✓
0.0018817	0.00025837	0.00050402	0.0010445	0.030093	0.00060421 ✓
0.011277	0.020823	0.12483	0.00039342	0.00050402	0.00060558 ✓
0.042937	0.0012231	0.013425	0.00019786	0.0018817	4.0275e-05 ✓
0.00028617	0.00085283	0.013408	0.00041875	0.13918	0.00021819 ✓
0.00028617	0.00061915	0.036743	0.0015155	0.014687	0.00019527 ✓
0.0018817	2.4711e-05	0.00028093	0.00079866	0.014722	0.00028714 ✓
0.00021693	0.00028093	0.1962	0.75708	0.95618	0.2354 ✓
1.7482	0.66845	0.873	2.3737	0.79682	3 ✓
0.33333	0.8319	7.1793	24.931	14.692	7.5787 ✓
6.4105	0	0	0	0	3.4705 ✓
17.18	22.256	5.1832	0	0	0 ✓
0	0	0	3.2377	5.7046	9.518 ✓
33.093	35.729	0.66667	0	0	
0.082284	0.13813	0.032256	0.029455	0.014509	0.030881 ✓
0.023337	0.17	0.030168	0.122	0.076712	0.04848 ✓
0.33795	0.67771	0.03126	0.030881	0.058547	0.051587 ✓



0.03994	0.12102	0.028387	0.027061	0.0089637	0.034598 ✓
0.021941	0.14954	0.033843	0.21519	0.038904	0.15357 ✓
0.039951	0.034598	0.03794	0.066308	0.055902	0.17799 ✓
0.019657	0.01992	0.0059799	0.020232	0.014373	0.21086 ✓
0.019896	0.032231	0.34825	0.012098	0.020232	0.044553 ✓
0.079981	0.0010713	0.11592	0.002133	0.033109	0.00036994 ✓
0.0021384	0.00029665	0.00050222	0.0012593	0.033223	0.00057771 ✓
0.012033	0.025748	0.11036	0.00039827	0.00050222	0.00097162 ✓
0.073876	0.0022082	0.028219	0.00023781	0.0021384	7.6484e-05 ✓
0.00032816	0.0013324	0.028226	0.00049159	0.12518	0.00025239 ✓
0.00032816	0.00071683	0.038662	0.0013076	0.0099337	0.00024351 ✓
0.0021384	2.147e-05	0.00037414	0.00090591	0.009936	0.00039922 ✓
0.00029038	0.00037414	0.17695	0.6336	0.77408	0.33505 ✓
2.1903	0.7232	1.1877	2.0852	0.59094	2.8333 ✓
0.52251	1.7256	8.3535	20.473	15.244	8.264 ✓
8.391	0	0	0	1	6.0492 ✓
19.181	23.147	7.9624	0	0	0 ✓
0	0	1.2971	2.6833	5.6245	10.092 ✓
23.188	23.965	0.69693	0	0	
0.041035	0.10448	0.034984	0.042469	0.020437	0.039447 ✓
0.031151	0.11436	0.033921	0.065829	0.13773	0.071815 ✓
0.093979	0.19237	0.071524	0.039447	0.032669	0.06152 ✓
0.064398	0.12431	0.040739	0.030086	0.01799	0.030265 ✓
0.036756	0.15937	0.041451	0.10956	0.082599	0.14844 ✓
0.059094	0.030265	0.058794	0.08292	0.040373	0.1632 ✓
0.02238	0.022249	0.0058674	0.017141	0.014798	0.17148 ✓
0.017373	0.025682	0.56284	0.030846	0.017141	0.034287 ✓
0.041879	0.0014201	0.13008	0.0018002	0.034745	0.0004525 ✓
0.0018785	0.00024062	0.00074681	0.0011476	0.034772	0.0012761 ✓
0.012528	0.10444	0.017431	0.00056772	0.00074681	0.00095179 ✓
0.068642	0.0021178	0.025069	0.00033917	0.0018785	6.5414e-05 ✓
0.00049662	0.0011509	0.02513	0.00060239	0.090713	0.0003834 ✓
0.00049662	0.00087398	0.031386	0.0012285	0.025068	0.00028577 ✓
0.0018785	6.5442e-05	0.00046649	0.0011052	0.025149	0.00068349 ✓
0.00035294	0.00046649	0.22974	0.38199	0.86694	0.18373 ✓
1.5927	0.84092	1.6542	1.5257	0.64918	3 ✓
3.8059	22.246	10.698	11.886	9.2731	10.022 ✓
1.3555	0	0	0	0.33333	6.8468 ✓
15.934	32.859	21.07	2.0229	0	0 ✓
0	0	0	0	1.9065	4.7438 ✓
14.145	18.687	22.472	6.8024	0	
0.06515	0.22944	0.042314	0.051513	0.017372	0.050232 ✓
0.029258	0.2626	0.044897	0.1512	0.15115	0.051792 ✓
0.42153	1.5668	0.069321	0.050232	0.029885	0.043545 ✓
0.12344	0.086262	0.039084	0.022713	0.030844	0.029742 ✓
0.036238	0.16708	0.041277	0.13498	0.093843	0.09251 ✓
0.066286	0.029742	0.072371	0.076156	0.04038	0.22683 ✓
0.026815	0.018868	0.0078269	0.019453	0.017326	0.2353 ✓
0.013292	0.030498	0.76055	0.021348	0.019453	0.037666 ✓

0.10298	0.0014661	0.26275	0.0029849	0.054866	0.00047292 ✓
0.0031586	0.00047317	0.00068009	0.0014233	0.055146	0.00095951 ✓
0.019553	0.044065	0.024616	0.00051462	0.00068009	0.0019307 ✓
0.12493	0.0027283	0.02969	0.00044642	0.0031586	0.00016273 ✓
0.00063617	0.0023	0.029822	0.00088612	0.057273	0.00048582 ✓
0.00063617	0.0011036	0.050948	0.00080208	0.020113	0.00022347 ✓
0.0031586	3.802e-05	0.00031272	0.0016042	0.020143	0.00039126 ✓
0.00024304	0.00031272	0.29598	2.5881	2.602	0.14474 ✓
1.8163	0.91026	1.8647	1.4506	0.7232	2.9999 ✓
0.82808	2.8846	11.017	20.43	19.105	25.014 ✓
2.6325	0.16667	0	0.74907	12.244	9.1219 ✓
6.2769	11.48	11.27	8.4312	0.76012	0 ✓
0	0	0	0.83333	3.3547	4.0809 ✓
16.246	19.514	6.3072	7.6355	0	

```
>> % Directory containing the files
dataDir = 'C:\Users\ASUS\Documents\Computer Science @Plymuni . NSBM\3rd Year\AI and ML\Coursework\New folder';

% Filter for .mat files and exclude 'matlab.mat'
files = dir(fullfile(dataDir, '*.mat'));
files = files(~strcmp({files.name}, 'matlab.mat')); % Exclude 'matlab.mat'
if isempty(files)
    error('No valid .mat files found in the directory. Please check the file extensions or path.');
```

```
else
    disp(['Number of .mat files found: ', num2str(length(files))]);
end

% Initialize variables
data_groups = containers.Map('KeyType', 'double', 'ValueType', 'any'); % Use 'double' for numeric keys

% Load and group data by feature count
for i = 1:length(files)
    filePath = fullfile(files(i).folder, files(i).name);
    disp(['Processing file: ', files(i).name]);

    % Load the data
    try
        data = load(filePath);
    catch ME
        disp(['Error loading file: ', files(i).name, ' - ', ME.message]);
        continue;
    end

    % Get field names in the .mat file
    featureKey = fieldnames(data);
    if isempty(featureKey)
```

```

        disp(['Skipping file: ', files(i).name, ' - No fields found in the data.']);
        continue;
    end
    disp(['Fields in the file: ', files(i).name]);
    disp(featureKey);

    % Access the first field (assuming it contains features)
    try
        features = data.(featureKey{1}); % Adjust if necessary
    catch
        disp(['Skipping file: ', files(i).name, ' - Unable to access the first
field.']);
        continue;
    end

    % Validate features
    if isempty(features) || ~isnumeric(features)
        disp(['Skipping file: ', files(i).name, ' - Data is empty or not numeric.']);
        continue;
    end

    % Display data size for debugging
    disp(['File: ', files(i).name, ', Size: ', num2str(size(features))]);

    % Group by feature count
    feature_count = size(features, 2); % Number of features (columns)
    if ~isKey(data_groups, feature_count)
        data_groups(feature_count) = features;
    else
        data_groups(feature_count) = [data_groups(feature_count); features];
    end
end

% Train and evaluate MLP for each feature group
feature_keys = keys(data_groups);
for k = 1:length(feature_keys)
    feature_count = feature_keys{k};
    dataset = data_groups(feature_count);

    disp(['Training MLP for ', num2str(feature_count), '-feature dataset...']);

    % Split data into training and testing sets
    [n_samples, n_features] = size(dataset);
    labels = randi([0, 1], n_samples, 1); % Example: Generate random binary labels

    % Shuffle data
    perm = randperm(n_samples);
    dataset = dataset(perm, :);
    labels = labels(perm, :);

```

```

% 80% training, 20% testing
train_ratio = 0.8;
n_train = round(train_ratio * n_samples);
train_data = dataset(1:n_train, :);
train_labels = labels(1:n_train);
test_data = dataset(n_train+1:end, :);
test_labels = labels(n_train+1:end);

% Train MLP
net = feedforwardnet(10); % 10 hidden neurons (adjust as necessary)
net.trainParam.showWindow = false; % Suppress GUI for automated runs
net = train(net, train_data', train_labels'); % Transpose for MATLAB format

% Test MLP
predictions = net(test_data')';
predictions = round(predictions); % Convert outputs to binary for comparison

% Evaluate performance
accuracy = mean(predictions == test_labels);
disp(['Accuracy for ', num2str(feature_count), '-feature dataset: ', num2str(
accuracy * 100), '%']);
end
Number of .mat files found: 60
Processing file: U01_Acc_FreqD_FDay.mat
Fields in the file: U01_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

File: U01_Acc_FreqD_FDay.mat, Size: 36  43
Processing file: U01_Acc_FreqD_MDay.mat
Fields in the file: U01_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

File: U01_Acc_FreqD_MDay.mat, Size: 36  43
Processing file: U01_Acc_TimeD_FDay.mat
Fields in the file: U01_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

File: U01_Acc_TimeD_FDay.mat, Size: 36  88
Processing file: U01_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U01_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U01_Acc_TimeD_FreqD_FDay.mat, Size: 36  131
Processing file: U01_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U01_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U01_Acc_TimeD_FreqD_MDay.mat, Size: 36  131

```

```
Processing file: U01_Acc_Timed_MDay.mat
Fields in the file: U01_Acc_Timed_MDay.mat
    {'Acc_TD_Feat_Vec'}

File: U01_Acc_Timed_MDay.mat, Size: 36  88
Processing file: U02_Acc_FreqD_FDay.mat
Fields in the file: U02_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

File: U02_Acc_FreqD_FDay.mat, Size: 36  43
Processing file: U02_Acc_FreqD_MDay.mat
Fields in the file: U02_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

File: U02_Acc_FreqD_MDay.mat, Size: 36  43
Processing file: U02_Acc_Timed_FDay.mat
Fields in the file: U02_Acc_Timed_FDay.mat
    {'Acc_TD_Feat_Vec'}

File: U02_Acc_Timed_FDay.mat, Size: 36  88
Processing file: U02_Acc_Timed_FreqD_FDay.mat
Fields in the file: U02_Acc_Timed_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U02_Acc_Timed_FreqD_FDay.mat, Size: 36  131
Processing file: U02_Acc_Timed_FreqD_MDay.mat
Fields in the file: U02_Acc_Timed_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U02_Acc_Timed_FreqD_MDay.mat, Size: 36  131
Processing file: U02_Acc_Timed_MDay.mat
Fields in the file: U02_Acc_Timed_MDay.mat
    {'Acc_TD_Feat_Vec'}

File: U02_Acc_Timed_MDay.mat, Size: 36  88
Processing file: U03_Acc_FreqD_FDay.mat
Fields in the file: U03_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

File: U03_Acc_FreqD_FDay.mat, Size: 36  43
Processing file: U03_Acc_FreqD_MDay.mat
Fields in the file: U03_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

File: U03_Acc_FreqD_MDay.mat, Size: 36  43
Processing file: U03_Acc_Timed_FDay.mat
Fields in the file: U03_Acc_Timed_FDay.mat
    {'Acc_TD_Feat_Vec'}
```

```
File: U03_Acc_TimeD_FDay.mat, Size: 36 88
Processing file: U03_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U03_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U03_Acc_TimeD_FreqD_FDay.mat, Size: 36 131
Processing file: U03_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U03_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U03_Acc_TimeD_FreqD_MDay.mat, Size: 36 131
Processing file: U03_Acc_TimeD_MDay.mat
Fields in the file: U03_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}

File: U03_Acc_TimeD_MDay.mat, Size: 36 88
Processing file: U04_Acc_FreqD_FDay.mat
Fields in the file: U04_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

File: U04_Acc_FreqD_FDay.mat, Size: 36 43
Processing file: U04_Acc_FreqD_MDay.mat
Fields in the file: U04_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

File: U04_Acc_FreqD_MDay.mat, Size: 36 43
Processing file: U04_Acc_TimeD_FDay.mat
Fields in the file: U04_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

File: U04_Acc_TimeD_FDay.mat, Size: 36 88
Processing file: U04_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U04_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U04_Acc_TimeD_FreqD_FDay.mat, Size: 36 131
Processing file: U04_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U04_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U04_Acc_TimeD_FreqD_MDay.mat, Size: 36 131
Processing file: U04_Acc_TimeD_MDay.mat
Fields in the file: U04_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}

File: U04_Acc_TimeD_MDay.mat, Size: 36 88
Processing file: U05_Acc_FreqD_FDay.mat
Fields in the file: U05_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}
```

File: U05\_Acc\_FreqD\_FDay.mat, Size: 36 43  
Processing file: U05\_Acc\_FreqD\_MDay.mat  
Fields in the file: U05\_Acc\_FreqD\_MDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

File: U05\_Acc\_FreqD\_MDay.mat, Size: 36 43  
Processing file: U05\_Acc\_Timed\_FDay.mat  
Fields in the file: U05\_Acc\_Timed\_FDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

File: U05\_Acc\_Timed\_FDay.mat, Size: 36 88  
Processing file: U05\_Acc\_Timed\_FreqD\_FDay.mat  
Fields in the file: U05\_Acc\_Timed\_FreqD\_FDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

File: U05\_Acc\_Timed\_FreqD\_FDay.mat, Size: 36 131  
Processing file: U05\_Acc\_Timed\_FreqD\_MDay.mat  
Fields in the file: U05\_Acc\_Timed\_FreqD\_MDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

File: U05\_Acc\_Timed\_FreqD\_MDay.mat, Size: 36 131  
Processing file: U05\_Acc\_Timed\_MDay.mat  
Fields in the file: U05\_Acc\_Timed\_MDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

File: U05\_Acc\_Timed\_MDay.mat, Size: 36 88  
Processing file: U06\_Acc\_FreqD\_FDay.mat  
Fields in the file: U06\_Acc\_FreqD\_FDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

File: U06\_Acc\_FreqD\_FDay.mat, Size: 36 43  
Processing file: U06\_Acc\_FreqD\_MDay.mat  
Fields in the file: U06\_Acc\_FreqD\_MDay.mat  
{ 'Acc\_FD\_Feat\_Vec' }

File: U06\_Acc\_FreqD\_MDay.mat, Size: 36 43  
Processing file: U06\_Acc\_Timed\_FDay.mat  
Fields in the file: U06\_Acc\_Timed\_FDay.mat  
{ 'Acc\_TD\_Feat\_Vec' }

File: U06\_Acc\_Timed\_FDay.mat, Size: 36 88  
Processing file: U06\_Acc\_Timed\_FreqD\_FDay.mat  
Fields in the file: U06\_Acc\_Timed\_FreqD\_FDay.mat  
{ 'Acc\_TDFD\_Feat\_Vec' }

File: U06\_Acc\_Timed\_FreqD\_FDay.mat, Size: 36 131  
Processing file: U06\_Acc\_Timed\_FreqD\_MDay.mat  
Fields in the file: U06\_Acc\_Timed\_FreqD\_MDay.mat

```
{'Acc_TDFD_Feat_Vec'}
```

```
File: U06_Acc_Timed_FreqD_MDay.mat, Size: 36 131
```

```
Processing file: U06_Acc_Timed_MDay.mat
```

```
Fields in the file: U06_Acc_Timed_MDay.mat
```

```
{'Acc_TD_Feat_Vec'}
```

```
File: U06_Acc_Timed_MDay.mat, Size: 36 88
```

```
Processing file: U07_Acc_FreqD_FDay.mat
```

```
Fields in the file: U07_Acc_FreqD_FDay.mat
```

```
{'Acc_FD_Feat_Vec'}
```

```
File: U07_Acc_FreqD_FDay.mat, Size: 36 43
```

```
Processing file: U07_Acc_FreqD_MDay.mat
```

```
Fields in the file: U07_Acc_FreqD_MDay.mat
```

```
{'Acc_FD_Feat_Vec'}
```

```
File: U07_Acc_FreqD_MDay.mat, Size: 36 43
```

```
Processing file: U07_Acc_Timed_FDay.mat
```

```
Fields in the file: U07_Acc_Timed_FDay.mat
```

```
{'Acc_TD_Feat_Vec'}
```

```
File: U07_Acc_Timed_FDay.mat, Size: 36 88
```

```
Processing file: U07_Acc_Timed_FreqD_FDay.mat
```

```
Fields in the file: U07_Acc_Timed_FreqD_FDay.mat
```

```
{'Acc_TDFD_Feat_Vec'}
```

```
File: U07_Acc_Timed_FreqD_FDay.mat, Size: 36 131
```

```
Processing file: U07_Acc_Timed_FreqD_MDay.mat
```

```
Fields in the file: U07_Acc_Timed_FreqD_MDay.mat
```

```
{'Acc_TDFD_Feat_Vec'}
```

```
File: U07_Acc_Timed_FreqD_MDay.mat, Size: 36 131
```

```
Processing file: U07_Acc_Timed_MDay.mat
```

```
Fields in the file: U07_Acc_Timed_MDay.mat
```

```
{'Acc_TD_Feat_Vec'}
```

```
File: U07_Acc_Timed_MDay.mat, Size: 36 88
```

```
Processing file: U08_Acc_FreqD_FDay.mat
```

```
Fields in the file: U08_Acc_FreqD_FDay.mat
```

```
{'Acc_FD_Feat_Vec'}
```

```
File: U08_Acc_FreqD_FDay.mat, Size: 36 43
```

```
Processing file: U08_Acc_FreqD_MDay.mat
```

```
Fields in the file: U08_Acc_FreqD_MDay.mat
```

```
{'Acc_FD_Feat_Vec'}
```

```
File: U08_Acc_FreqD_MDay.mat, Size: 36 43
```

```
Processing file: U08_Acc_Timed_FDay.mat
```



Fields in the file: U08\_Acc\_TimeD\_FDay.mat  
{'Acc\_TD\_Feat\_Vec'}

File: U08\_Acc\_TimeD\_FDay.mat, Size: 36 88  
Processing file: U08\_Acc\_TimeD\_FreqD\_FDay.mat  
Fields in the file: U08\_Acc\_TimeD\_FreqD\_FDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

File: U08\_Acc\_TimeD\_FreqD\_FDay.mat, Size: 36 131  
Processing file: U08\_Acc\_TimeD\_FreqD\_MDay.mat  
Fields in the file: U08\_Acc\_TimeD\_FreqD\_MDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

File: U08\_Acc\_TimeD\_FreqD\_MDay.mat, Size: 36 131  
Processing file: U08\_Acc\_TimeD\_MDay.mat  
Fields in the file: U08\_Acc\_TimeD\_MDay.mat  
{'Acc\_TD\_Feat\_Vec'}

File: U08\_Acc\_TimeD\_MDay.mat, Size: 36 88  
Processing file: U09\_Acc\_FreqD\_FDay.mat  
Fields in the file: U09\_Acc\_FreqD\_FDay.mat  
{'Acc\_FD\_Feat\_Vec'}

File: U09\_Acc\_FreqD\_FDay.mat, Size: 36 43  
Processing file: U09\_Acc\_FreqD\_MDay.mat  
Fields in the file: U09\_Acc\_FreqD\_MDay.mat  
{'Acc\_FD\_Feat\_Vec'}

File: U09\_Acc\_FreqD\_MDay.mat, Size: 36 43  
Processing file: U09\_Acc\_TimeD\_FDay.mat  
Fields in the file: U09\_Acc\_TimeD\_FDay.mat  
{'Acc\_TD\_Feat\_Vec'}

File: U09\_Acc\_TimeD\_FDay.mat, Size: 36 88  
Processing file: U09\_Acc\_TimeD\_FreqD\_FDay.mat  
Fields in the file: U09\_Acc\_TimeD\_FreqD\_FDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

File: U09\_Acc\_TimeD\_FreqD\_FDay.mat, Size: 36 131  
Processing file: U09\_Acc\_TimeD\_FreqD\_MDay.mat  
Fields in the file: U09\_Acc\_TimeD\_FreqD\_MDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

File: U09\_Acc\_TimeD\_FreqD\_MDay.mat, Size: 36 131  
Processing file: U09\_Acc\_TimeD\_MDay.mat  
Fields in the file: U09\_Acc\_TimeD\_MDay.mat  
{'Acc\_TD\_Feat\_Vec'}

File: U09\_Acc\_TimeD\_MDay.mat, Size: 36 88

```

Processing file: U10_Acc_FreqD_FDay.mat
Fields in the file: U10_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

File: U10_Acc_FreqD_FDay.mat, Size: 36  43
Processing file: U10_Acc_FreqD_MDay.mat
Fields in the file: U10_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

File: U10_Acc_FreqD_MDay.mat, Size: 36  43
Processing file: U10_Acc_TimeD_FDay.mat
Fields in the file: U10_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

File: U10_Acc_TimeD_FDay.mat, Size: 36  88
Processing file: U10_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U10_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U10_Acc_TimeD_FreqD_FDay.mat, Size: 36  131
Processing file: U10_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U10_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

File: U10_Acc_TimeD_FreqD_MDay.mat, Size: 36  131
Processing file: U10_Acc_TimeD_MDay.mat
Fields in the file: U10_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}

File: U10_Acc_TimeD_MDay.mat, Size: 36  88
Training MLP for 43-feature dataset...
Accuracy for 43-feature dataset: 47.9167%
Training MLP for 88-feature dataset...
Accuracy for 88-feature dataset: 50.6944%
Training MLP for 131-feature dataset...
Accuracy for 131-feature dataset: 55.5556%
>> % Directory containing the files
dataDir = 'C:\Users\ASUS\Documents\Computer Science @Plymuni . NSBM\3rd Year\AI and ML\Coursework\New folder';

% Filter for .mat files
files = dir(fullfile(dataDir, '*.mat'));
if isempty(files)
    error('No .mat files found in the directory. Please check the file extensions or path. ');
else
    disp(['Number of .mat files found: ', num2str(length(files))]);
end

```

```
% Initialize variables
data_groups = containers.Map('KeyType', 'double', 'ValueType', 'any');

% Load and group data by feature count
for i = 1:length(files)
    filePath = fullfile(files(i).folder, files(i).name);
    disp(['Processing file: ', files(i).name]);

    % Load the data
    try
        data = load(filePath);
    catch ME
        disp(['Error loading file: ', files(i).name, ' - ', ME.message]);
        continue;
    end

    % Get field names in the .mat file
    featureKey = fieldnames(data);
    if isempty(featureKey)
        disp(['Skipping file: ', files(i).name, ' - No fields found in the data.']);
        continue;
    end
    disp(['Fields in the file: ', files(i).name]);
    disp(featureKey);

    % Access the first field (assuming it contains features)
    try
        features = data.(featureKey{1});
    catch
        disp(['Skipping file: ', files(i).name, ' - Unable to access the first field.']);
        continue;
    end

    % Validate features
    if isempty(features) || ~isnumeric(features)
        disp(['Skipping file: ', files(i).name, ' - Data is empty or not numeric.']);
        continue;
    end

    % Group by feature count
    feature_count = size(features, 2); % Number of features (columns)
    if ~isKey(data_groups, feature_count)
        data_groups(feature_count) = features;
    else
        data_groups(feature_count) = [data_groups(feature_count); features];
    end
end
```

```
% Train and evaluate MLP for each feature group
feature_keys = keys(data_groups);
for k = 1:length(feature_keys)
    feature_count = feature_keys{k};
    dataset = data_groups(feature_count);

    disp(['Training MLP for ', num2str(feature_count), '-feature dataset...']);

    % Split data into training and testing sets
    [n_samples, n_features] = size(dataset);
    labels = randi([0, 1], n_samples, 1); % Example: Generate random binary labels

    % Shuffle data
    perm = randperm(n_samples);
    dataset = dataset(perm, :);
    labels = labels(perm, :);

    % 80% training, 20% testing
    train_ratio = 0.8;
    n_train = round(train_ratio * n_samples);
    train_data = dataset(1:n_train, :);
    train_labels = labels(1:n_train);
    test_data = dataset(n_train+1:end, :);
    test_labels = labels(n_train+1:end);

    % PCA for dimensionality reduction
    [coeff, train_data_pca, ~, ~, explained] = pca(train_data);
    cumulativeVariance = cumsum(explained);
    pca_idx = find(cumulativeVariance >= 95, 1); % Retain 95% variance
    train_data_pca = train_data_pca(:, 1:pca_idx);
    test_data_pca = test_data * coeff(:, 1:pca_idx);

    % Step 3: Cross-Validated Training and Tuning
    hidden_layer_sizes = [5, 10, 20]; % Number of neurons to test
    activation_functions = {'logsig', 'tansig', 'purelin'};
    best_accuracy = 0;
    best_net = [];

    for h = 1:length(hidden_layer_sizes)
        for a = 1:length(activation_functions)
            % Create and configure MLP
            net = feedforwardnet(hidden_layer_sizes(h));
            net.layers{1}.transferFcn = activation_functions{a};
            net.trainParam.showWindow = false; % Suppress GUI
            net.divideParam.trainRatio = 0.8; % Train
            net.divideParam.valRatio = 0.1; % Validation
            net.divideParam.testRatio = 0.1; % Test

            % Add L2 regularization
```

```

        net.performParam.regularization = 0.1; % Regularization parameter

        % Train with cross-validation
        net = train(net, train_data_pca', train_labels'); % Transpose for MATLAB↵
format

        % Evaluate on test set
        predictions = net(test_data_pca')';
        predictions = round(predictions); % Convert outputs to binary for↵
comparison
        accuracy = mean(predictions == test_labels);

        disp(['Hidden neurons: ', num2str(hidden_layer_sizes(h)), ', Activation:↵
', activation_functions{a}, ...
            ', Accuracy: ', num2str(accuracy * 100), '%']);

        % Track the best model
        if accuracy > best_accuracy
            best_accuracy = accuracy;
            best_net = net;
        end
    end
end

% Display best model results
disp(['Best model for ', num2str(feature_count), '-feature dataset:']);
disp(['Accuracy: ', num2str(best_accuracy * 100), '%']);
end
Number of .mat files found: 61
Processing file: U01_Acc_FreqD_FDay.mat
Fields in the file: U01_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U01_Acc_FreqD_MDay.mat
Fields in the file: U01_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U01_Acc_TimeD_FDay.mat
Fields in the file: U01_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U01_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U01_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U01_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U01_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

```

```
Processing file: U01_Acc_TimeD_MDay.mat
Fields in the file: U01_Acc_TimeD_MDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U02_Acc_FreqD_FDay.mat
Fields in the file: U02_Acc_FreqD_FDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U02_Acc_FreqD_MDay.mat
Fields in the file: U02_Acc_FreqD_MDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U02_Acc_TimeD_FDay.mat
Fields in the file: U02_Acc_TimeD_FDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U02_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U02_Acc_TimeD_FreqD_FDay.mat
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U02_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U02_Acc_TimeD_FreqD_MDay.mat
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U02_Acc_TimeD_MDay.mat
Fields in the file: U02_Acc_TimeD_MDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U03_Acc_FreqD_FDay.mat
Fields in the file: U03_Acc_FreqD_FDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U03_Acc_FreqD_MDay.mat
Fields in the file: U03_Acc_FreqD_MDay.mat
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U03_Acc_TimeD_FDay.mat
Fields in the file: U03_Acc_TimeD_FDay.mat
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U03_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U03_Acc_TimeD_FreqD_FDay.mat
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U03_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U03_Acc_TimeD_FreqD_MDay.mat
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U03_Acc_TimeD_MDay.mat
```

Fields in the file: U03\_Acc\_Timed\_MDay.mat  
{'Acc\_TD\_Feat\_Vec'}

Processing file: U04\_Acc\_FreqD\_FDay.mat  
Fields in the file: U04\_Acc\_FreqD\_FDay.mat  
{'Acc\_FD\_Feat\_Vec'}

Processing file: U04\_Acc\_FreqD\_MDay.mat  
Fields in the file: U04\_Acc\_FreqD\_MDay.mat  
{'Acc\_FD\_Feat\_Vec'}

Processing file: U04\_Acc\_Timed\_FDay.mat  
Fields in the file: U04\_Acc\_Timed\_FDay.mat  
{'Acc\_TD\_Feat\_Vec'}

Processing file: U04\_Acc\_Timed\_FreqD\_FDay.mat  
Fields in the file: U04\_Acc\_Timed\_FreqD\_FDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

Processing file: U04\_Acc\_Timed\_FreqD\_MDay.mat  
Fields in the file: U04\_Acc\_Timed\_FreqD\_MDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

Processing file: U04\_Acc\_Timed\_MDay.mat  
Fields in the file: U04\_Acc\_Timed\_MDay.mat  
{'Acc\_TD\_Feat\_Vec'}

Processing file: U05\_Acc\_FreqD\_FDay.mat  
Fields in the file: U05\_Acc\_FreqD\_FDay.mat  
{'Acc\_FD\_Feat\_Vec'}

Processing file: U05\_Acc\_FreqD\_MDay.mat  
Fields in the file: U05\_Acc\_FreqD\_MDay.mat  
{'Acc\_FD\_Feat\_Vec'}

Processing file: U05\_Acc\_Timed\_FDay.mat  
Fields in the file: U05\_Acc\_Timed\_FDay.mat  
{'Acc\_TD\_Feat\_Vec'}

Processing file: U05\_Acc\_Timed\_FreqD\_FDay.mat  
Fields in the file: U05\_Acc\_Timed\_FreqD\_FDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

Processing file: U05\_Acc\_Timed\_FreqD\_MDay.mat  
Fields in the file: U05\_Acc\_Timed\_FreqD\_MDay.mat  
{'Acc\_TDFD\_Feat\_Vec'}

Processing file: U05\_Acc\_Timed\_MDay.mat  
Fields in the file: U05\_Acc\_Timed\_MDay.mat

```
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U06_Acc_FreqD_FDay.mat  
Fields in the file: U06_Acc_FreqD_FDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U06_Acc_FreqD_MDay.mat  
Fields in the file: U06_Acc_FreqD_MDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U06_Acc_TimeD_FDay.mat  
Fields in the file: U06_Acc_TimeD_FDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U06_Acc_TimeD_FreqD_FDay.mat  
Fields in the file: U06_Acc_TimeD_FreqD_FDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U06_Acc_TimeD_FreqD_MDay.mat  
Fields in the file: U06_Acc_TimeD_FreqD_MDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U06_Acc_TimeD_MDay.mat  
Fields in the file: U06_Acc_TimeD_MDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U07_Acc_FreqD_FDay.mat  
Fields in the file: U07_Acc_FreqD_FDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U07_Acc_FreqD_MDay.mat  
Fields in the file: U07_Acc_FreqD_MDay.mat  
{'Acc_FD_Feat_Vec'}
```

```
Processing file: U07_Acc_TimeD_FDay.mat  
Fields in the file: U07_Acc_TimeD_FDay.mat  
{'Acc_TD_Feat_Vec'}
```

```
Processing file: U07_Acc_TimeD_FreqD_FDay.mat  
Fields in the file: U07_Acc_TimeD_FreqD_FDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U07_Acc_TimeD_FreqD_MDay.mat  
Fields in the file: U07_Acc_TimeD_FreqD_MDay.mat  
{'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U07_Acc_TimeD_MDay.mat  
Fields in the file: U07_Acc_TimeD_MDay.mat  
{'Acc_TD_Feat_Vec'}
```



```
Processing file: U08_Acc_FreqD_FDay.mat
Fields in the file: U08_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U08_Acc_FreqD_MDay.mat
Fields in the file: U08_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U08_Acc_TimeD_FDay.mat
Fields in the file: U08_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U08_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U08_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U08_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U08_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U08_Acc_TimeD_MDay.mat
Fields in the file: U08_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U09_Acc_FreqD_FDay.mat
Fields in the file: U09_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U09_Acc_FreqD_MDay.mat
Fields in the file: U09_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}

Processing file: U09_Acc_TimeD_FDay.mat
Fields in the file: U09_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}

Processing file: U09_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U09_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U09_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U09_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}

Processing file: U09_Acc_TimeD_MDay.mat
Fields in the file: U09_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}
```

```
Processing file: U10_Acc_FreqD_FDay.mat
Fields in the file: U10_Acc_FreqD_FDay.mat
    {'Acc_FD_Feat_Vec'}
```

```
Processing file: U10_Acc_FreqD_MDay.mat
Fields in the file: U10_Acc_FreqD_MDay.mat
    {'Acc_FD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_FDay.mat
Fields in the file: U10_Acc_TimeD_FDay.mat
    {'Acc_TD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_FreqD_FDay.mat
Fields in the file: U10_Acc_TimeD_FreqD_FDay.mat
    {'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_FreqD_MDay.mat
Fields in the file: U10_Acc_TimeD_FreqD_MDay.mat
    {'Acc_TDFD_Feat_Vec'}
```

```
Processing file: U10_Acc_TimeD_MDay.mat
Fields in the file: U10_Acc_TimeD_MDay.mat
    {'Acc_TD_Feat_Vec'}
```

```
Processing file: matlab.mat
Fields in the file: matlab.mat
    {'a' }
    {'accuracy' }
    {'activation_functions' }
    {'best_accuracy' }
    {'best_net' }
    {'count' }
    {'data' }
    {'dataDir' }
    {'data_groups' }
    {'dataset' }
    {'dirContent' }
    {'featureKey' }
    {'feature_count' }
    {'feature_counts' }
    {'feature_keys' }
    {'features' }
    {'fileName' }
    {'filePath' }
    {'files' }
    {'group_idx' }
    {'group_mean' }
    {'group_std' }
    {'group_variance' }
```

```

{'h'                }
{'hidden_layer_sizes' }
{'i'                }
{'k'                }
{'labels'           }
{'meanTable'        }
{'n_features'       }
{'n_samples'        }
{'n_train'          }
{'net'              }
{'perm'             }
{'predictions'      }
{'stats_mean'        }
{'stats_std'         }
{'stats_variance'    }
{'stdTable'         }
{'test_data'         }
{'test_labels'       }
{'train_data'        }
{'train_labels'      }
{'train_ratio'       }
{'u'                }
{'unique_feature_counts'}
{'user_id'           }
{'user_ids'          }
{'varianceTable'     }

```

Training MLP for 1-feature dataset...

```

Hidden neurons: 5, Activation: logsig, Accuracy: NaN%
Hidden neurons: 5, Activation: tansig, Accuracy: NaN%
Hidden neurons: 5, Activation: purelin, Accuracy: NaN%
Hidden neurons: 10, Activation: logsig, Accuracy: NaN%
Hidden neurons: 10, Activation: tansig, Accuracy: NaN%
Hidden neurons: 10, Activation: purelin, Accuracy: NaN%
Hidden neurons: 20, Activation: logsig, Accuracy: NaN%
Hidden neurons: 20, Activation: tansig, Accuracy: NaN%
Hidden neurons: 20, Activation: purelin, Accuracy: NaN%
Best model for 1-feature dataset:
Accuracy: 0%

```

Training MLP for 43-feature dataset...

```

Warning: Columns of X are linearly dependent to within machine precision.
Using only the first 35 components to compute TSQUARED.
> In pca>localTSquared (line 515)

```

```

In pca (line 361)

```

```

Hidden neurons: 5, Activation: logsig, Accuracy: 49.3056%
Hidden neurons: 5, Activation: tansig, Accuracy: 52.0833%
Hidden neurons: 5, Activation: purelin, Accuracy: 51.3889%
Hidden neurons: 10, Activation: logsig, Accuracy: 49.3056%
Hidden neurons: 10, Activation: tansig, Accuracy: 49.3056%

```

```
Hidden neurons: 10, Activation: purelin, Accuracy: 53.4722%
Hidden neurons: 20, Activation: logsig, Accuracy: 50%
Hidden neurons: 20, Activation: tansig, Accuracy: 54.1667%
Hidden neurons: 20, Activation: purelin, Accuracy: 54.8611%
Best model for 43-feature dataset:
Accuracy: 54.8611%
Training MLP for 88-feature dataset...
Warning: Columns of X are linearly dependent to within machine precision.
Using only the first 78 components to compute TSQUARED.
> In pca>localTSquared (line 515)
In pca (line 361)
Hidden neurons: 5, Activation: logsig, Accuracy: 45.8333%
Hidden neurons: 5, Activation: tansig, Accuracy: 45.8333%
Hidden neurons: 5, Activation: purelin, Accuracy: 43.75%
Hidden neurons: 10, Activation: logsig, Accuracy: 45.8333%
Hidden neurons: 10, Activation: tansig, Accuracy: 43.75%
Hidden neurons: 10, Activation: purelin, Accuracy: 45.8333%
Hidden neurons: 20, Activation: logsig, Accuracy: 45.8333%
Hidden neurons: 20, Activation: tansig, Accuracy: 50.6944%
Hidden neurons: 20, Activation: purelin, Accuracy: 47.2222%
Best model for 88-feature dataset:
Accuracy: 50.6944%
Training MLP for 131-feature dataset...
Warning: Columns of X are linearly dependent to within machine precision.
Using only the first 104 components to compute TSQUARED.
> In pca>localTSquared (line 515)
In pca (line 361)
Hidden neurons: 5, Activation: logsig, Accuracy: 45.8333%
Hidden neurons: 5, Activation: tansig, Accuracy: 43.0556%
Hidden neurons: 5, Activation: purelin, Accuracy: 43.0556%
Hidden neurons: 10, Activation: logsig, Accuracy: 45.1389%
Hidden neurons: 10, Activation: tansig, Accuracy: 43.75%
Hidden neurons: 10, Activation: purelin, Accuracy: 48.6111%
Hidden neurons: 20, Activation: logsig, Accuracy: 55.5556%
Hidden neurons: 20, Activation: tansig, Accuracy: 46.5278%
Hidden neurons: 20, Activation: purelin, Accuracy: 50%
Best model for 131-feature dataset:
Accuracy: 55.5556%
>>
```