# Row and Column names for Table based on Arrays

**back to Fan's Intro Math for Econ, Matlab Examples, or Dynamic Asset Repositories**

## Generate Table with Row and Column Names based on Multiple Numeric Array

Two numeric arrays describe the column names, combine numeric arrays together to form string array which becomes table variable/column names.

```
close all;

% Generate Table 1
ar_fl_abc1 = [0.4 0.1 0.25 0.3 0.4];
ar_fl_abc2 = [0.4 0.1 0.2 0.3 0.4];
number1 = '123';
number2 = '456';
mt_data_a = [ar_fl_abc1' ar_fl_abc2'];

tb_test_a = array2table(mt_data_a);
cl_col_names_a = {['col' num2str(number1)], ['col' num2str(number2)]};
cl_row_names_a = strcat('rowA=', string((1:size(mt_data_a,1))));

tb_test_a.Properties.VariableNames = cl_col_names_a;
tb_test_a.Properties.RowNames = cl_row_names_a;
disp(tb_test_a);
```

```
            col123    col456
            ______    ______

    rowA=1    0.4       0.4
    rowA=2    0.1       0.1
    rowA=3   0.25       0.2
    rowA=4    0.3       0.3
    rowA=5    0.4       0.4
```

## Include Row Names as a Variable

```
% a and b must have the same row names
varrownames = tb_test_a.Properties.RowNames;
tb_test_a = addvars(tb_test_a, varrownames, 'Before', 1);

disp(tb_test_a);
```

```
            varrownames    col123    col456
            ___________    ______    ______

    rowA=1    {'rowA=1'}      0.4       0.4
    rowA=2    {'rowA=2'}      0.1       0.1
    rowA=3    {'rowA=3'}     0.25       0.2
    rowA=4    {'rowA=4'}      0.3       0.3
    rowA=5    {'rowA=5'}      0.4       0.4
```