

The Lucky One:

FAHRENHEIT TO CELSIUS

with Anonymous Function

```
% Fahrenheit to Celsius Converter
% This program uses an anonymous function to convert degree Fahrenheit to Celsius
% Variable Definition:
% F, array of temperatures in degrees Fahrenheit
% C, anonymous function handler
% CC, array of temperatures in degrees Celsius

clc, clear, close

C=@(F) (5/9).*(F-32);           % Anonymous Function Definition

% Input
F=[-50:10:250];                 % array of temperatures in degree Fahrenheit

% Function Call
CC=C(F);                        % Stores the converted values in array CC

% Output (as a Table)
fprintf('%6s %6s \n', 'F','C');  % Prints table title
fprintf('-----\n');

for ii=1:1:numel(F)
    fprintf('%6.1f %6.1f \n',F(ii),CC(ii)); %prints values one-by one
end
```

NOTE: The last loop can be replaced by the FERRARI statements:

```
tableData=[F;CC];              % makes a 2D array with F in row-1 and CC in row-2
fprintf('%6.1f %6.1f \n',tableData); % if more data than commands MATLAB prints
                                        % column by column in a row by row fashion
```

NOTE: In the above two statements there is no loop involved, and they use arrays, therefore, it is a vectorized code.

OUTPUT:

F	C
-50.0	-45.6
-40.0	-40.0
-30.0	-34.4
-20.0	-28.9
-10.0	-23.3
0.0	-17.8
10.0	-12.2
20.0	-6.7
30.0	-1.1
40.0	4.4
50.0	10.0
60.0	15.6
70.0	21.1
80.0	26.7
90.0	32.2
100.0	37.8
110.0	43.3
120.0	48.9
130.0	54.4
140.0	60.0
150.0	65.6
160.0	71.1
170.0	76.7
180.0	82.2
190.0	87.8
200.0	93.3
210.0	98.9
220.0	104.4
230.0	110.0
240.0	115.6
250.0	121.1