MATLAB Bootcamp – Homework 1

It's up to you whether you do the homework or not. It is really hard to learn programming without actually doing it yourself, so I recommend doing this if any of the concepts covered today were new to you.

Save your code in a .m file (e.g. HW1.m). It might help to add comments to your code – e.g. to differentiate the questions. Add comments by including `%` signs before any text you want MATLAB to ignore.

You are not obligated to submit anything to me, but if you want to check your answers you can email me your code and I will have a look at it. Also, feel free to contact me if you have any problems! kdrushka@ucsd.edu .

1. Create `v1`, a 4x1 column vector that contains any values you like.
2. Create `v2`, a 1x6 vector containing the values from 20 to 25.
3. Create `v3`, a 1x6 vector whose values are equal to 5 times the values in `v2`.
4. Create a new figure. Make sure it is cleared of any previous plots. Plot `v3` against `v2` as a red dotted line with square markers. (Type `help plot` or do an internet search for "Matlab line specification" to get some hints on plotting lines with different properties).
5. Create `v4`, a vector that goes from -2π to +2π containing at least 100 datapoints (i.e. the length of `v4` should be at least 100).
6. Create `v5`, a vector equal to the cosine of `v4` plus some nonzero offset (mean).
7. Without erasing the figure, now `v5` against `v4`.
8. Save your figure as a pdf.