Prac Test 2 - HINTS

Task 1 – Pug plot

- use slicing to exclude non-integer values

- make sure plt.plot(xxx) is working before trying the bar plot

- your data should fill out the 2D list – the structure is:

```
[["Pug", 1, 3, 3, 1],
["Shar pei", 3, 3, 4, 3],
["German Shepherd", ... ],
[..... ]]
```

- to get to the Pug now, it's plist[0]

- to get to the Pug's name it's plist[0][0]

- if you want the Pug ratings, use slicing to start *after* the Pug's name

- look up ***y limit matplotlib*** in the online documentation

Task 2 – all puppies line plot

- a line plot just uses plt.plot()

- try it without the loop and then see the repeating pattern in the code that will help you put it into a loop

- the line colours can be matplotlib automatic ones

Task 3 – each puppy subplot

- you can start by plotting one graph, placed four times in the subplots, then update them to have different data

- putting the colour names into a list of strings can simplify the code

- it's not required, but this can be done in about 8 lines if all done inside a loop

- remember to plt.show() once – after creating all subplots

Task 4 – all puppies grouped bar plot

- if you reduce the width of the bars, they'll able to fit next to each other

- plot one set of data, then try two... then look for repeated patterns to allow simplified code (loops and indexing)

- search for ***grouped bar chart matplotlib*** to see how to offset the bars

- work with the offsets as the x-axis, then the category names can be added in later as labels

i.e. plt.bar(<offset_code>, …)

- you'll need a numpy array holding [0,1,2,3] to start the offsets, then add the widths to each

x-labels do not have to be perfectly placed