

L1 PROBLEM 4 (4/4 points)

Note: This problem is contingent upon completing the exercises from L1 Problem 3.

Now for the plotting function! In pylab, the `plot` function takes in two equal sized lists and uses the first list as a list of the x-coordinates and the second list as a list of the y-coordinates.

In this problem we'll build a function `producePlot(lowTemps, highTemps)` which takes as parameters `lowTemps` (the list of low temperatures from your previous function) and `highTemps` (the list of high temperatures from your previous function).

1. Define `diffTemps` as a list which is the element by element difference between `highTemps` and `lowTemps`. Which is a valid plotting statement for a graph with days on the horizontal axis and the temperature difference on the vertical axis?

- ☐ `pylab.plot(highTemps, lowTemps)`
- ☐ `pylab.plot(range(1,32), highTemps)`
- ☐ `pylab.plot(range(1,32), lowTemps)`
- ☒ `pylab.plot(range(1,32), diffTemps)` ✓
- ☐ `pylab.plot(diffTemps, range(1,32))`

2. What line of code should your function include in order to give the graph the title 'Day by Day Ranges in Temperature in Boston in July 2012'?

```
pylab.title('Day by Day Ranges in Temperature in Bosto
```

3. What line of code should your function include in order to give the x-axis the label 'Days'?

```
pylab.xlabel('Days')
```

4. What line of code should your function include in order to give the y-axis the label 'Temperature Ranges'?

```
pylab.ylabel('Temperature Ranges')
```

Now that you're armed with the information from the above questions, complete your plotting function with the line `pylab.show()`. If you wrote both functions correctly, a plot should appear when you call your plotting function with the output of your data loading function as its arguments.

[What is an Easy Way to Manipulate Lists?](#)

[Spoiler: What Does the Program Look Like?](#)

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