

Name _____ Section _____

ALL SECTIONS have the same exam **topic**. DO NOT SHARE. There are no curves, even if the last section does better. KEEP IT FAIR FOR EVERYONE, including yourself, by replying "I can't say anything" to any question regarding this exam.

_____/34pts (8 free pts). Continue working in your Exam3 folder. This time, you WILL have to zip to submit the final result. You must now create 1 main code, and 1 more function to analyze and show the results of the analysis of the fruits data table.

The main code (about 18lines):

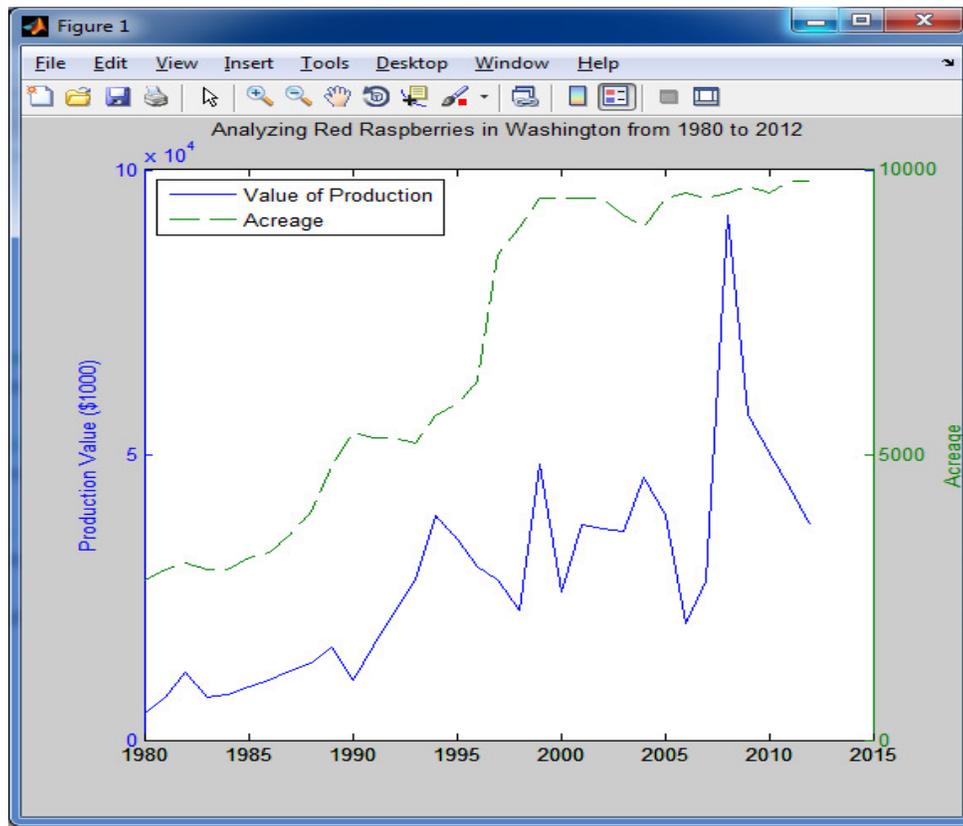
0. Shall have all the proper introduction, comments, spacing..etc.. (3pts)
1. Shall call the function `loadFruits()` written in part1. DO NOT USE `uigetfile()`, as there is no choice of file. Collect all the return-values. (3pts)
2. Shall determine if the fruit chosen in the state chosen. (5pts)
3. if it does not, a simple message box should pop up with the appropriate string, as shown here: (3pts)



4. if it does, the main code shall call the function `showResults()` to complete the analysis. (3pts). The description for this function is on the back of this paper...

(continued on back, to keep the text together with the picture)

The code for this analysis and plotting is within a function named `showResults()` (about 23 lines total). It is responsible for plotting the production value vs. the years, as well as the acreage vs. the years. READ FULLY before starting to code!



It requires 5 parameters (3pts): the 5 variables that were collected from calling `loadFruits()`. It has no return values (2pts).

In addition to the documentation (3pts), the function:

- (5pts) Extracts/filters the years, acreage, and production values for the state and fruits chosen ONLY.
- (5pts) Since the scales are radically different, it wouldn't make sense to have just one y-axis. The function `plotyy()` allows MATLAB to easily and automatically have 2 axis. KEEP IT SIMPLE.
- (2pts) Include a legend.
- (2pts) To generate the two separate y-labels, you will need to **collect** the first return value of the `plotyy()` command. Then use these commands (assuming production value was plotted first. Change accordingly). (Note, I copied pasted and updated these from the doc file).

```
set ( get ( ax(1), 'Ylabel' ) , 'String', 'Production Value ($1000)');
set ( get ( ax(2), 'Ylabel' ) , 'String', 'Acreage');
```

- (3pts) Determine automatically the minimum and maximum year, and create the title which also has the state and fruit chosen.
- (If time permits AND everything above is completed...) To change the second line to a dashed-line, you need to collect the third return value of the `plotyy()` command, then use:

```
set (h2, 'LineStyle', '--');
```