Exercise: *Due by classtime March 4th, 4:00 PM*

Exercise 13.0: Filename `yourName_plot_sinc.pro`.
Do the interactive part in a *journal* file, `yourName_ex13.0.pro`.

Exercise 13.1: Filename `yourName_swap.pro`. *Include all comments*
Do the interactive part in a *journal* file, `yourName_ex13.1.pro`.

Exercise 13.2: (not in book)
Write the `swap` function as in the IDL, but in python. But the tricky thing is, python won't change the values of arguments! So instead of the IDL style, where you reassign the variables *inside* the function, for python you need to do it outside. So our swap function will look something like this:

```
def swap(a,b):
    return b,a
```

Then we'll call it like this:

```
x=1
y=2
print(x,y)
x,y=swap(x,y)
print(x,y)
```

So, put the `swap` function in a file `swap.py`, and add a `docstring` to it (docstrings were discussed at the end of Lecture 11). Use `%run swap.py` to "compile" the function, then in the ipython terminal, try the swaps you did in 13.1 but in "pythonic" form. Also, do `help(swap)` to show your docstring.

Whuduzitdo? for chapter 13. Filename: `yourName_wdid13.txt`

Turn in via github:
`yourName_plot_sinc.pro`
`yourName_ex13.0.pro`
`yourName_swap.pro`
`yourName_ex13.1.pro`
`swap.py`
`ipython_log_######.py` (with the correct date in place of the `#`'s)
`yourName_wdid13.txt`

Homework 6: *Due March 6th, 11:59:59 PM*

Homework 14.0: Filename `yourName_coordinateArray.pro`
Where you are asked to change the code (i.e., delete parts), you should `git commit` before making the change. Also, where the code says to "test interactively", make sure you create a text file with these tests in it and turn that in with the code (you can turn in a journal file `journal_14.0_tests.pro` if you want).
Homework 14.0b: Run the same tests as in Homework 14.0 using python's `np.linspace` function instead of your IDL `coordinateArray` function. Turn in the `ipython_log` file.

If you'd like, you can do any of the following in python instead of IDL. At this stage, most of the directions in the book apply equally well to IDL and python, although you will likely run into different pitfalls. If you choose to do this in python, future assignments will look a little different. Also, change `.pro` to `.py`.

Homework 14.1: Filename: `yourName_planck.pro`
This file will contain a function, `planck`, and a procedure called `plot_Planck` that will call it.
`plot_Planck` will also call your `coordinateArray` function from Homework 14.0.
That should mean compiling both files. Don't *copy* the `coordinateArray` function into the file for this homework.

Homework 14.2: Filename: `yourName_twoD_2stars_HW14.2.pro`
Binary stars. This HW synthesizes many of the previous chapters.

Homework 14.3: Filename: `yourName_twoD_2stars_HW14.3.pro`
Modularize Homework 14.2.

Turn in via github: `yourName_coordinateArray.pro`
`journal_14.0_tests.pro`
`ipython_log....py` (`...` will be a date)
`yourName_planck.pro`
`yourName_planck10000K.jpg`
`yourName_twoD_2stars_HW14.2.pro`
`yourName_twoD_2stars_HW14.3.pro`