

Exercise: *Due by classtime February 4th*

IDL data types, advanced array usage, coordinate arrays, numerical integration

Journal file: `YourName_ex2.pro` (in your `~/ASTR2600_assignments/assignment2/` directory)

Exercise 2.0 Integer Data types

Exercise 2.1: Floating point data types

Exercise 2.2: String data type & `string` function

Exercise 3.0: Array creation and element access

Exercise 3.1: Array arithmetic, array functions, Vectors with Arrays

Exercise 3.2: Rescaling a Coordinate Array

Exercise 3.3: Random numbers to simulate experimental data

Exercise 3.4: Numerical derivative from finite difference

Exercise 3.5: Numerical integration of polynomial from $x = -2.$ to $7.$ using array operations

Repeat Exercise 3.5 in python: When you start `ipython -pylab`, it will automatically create an `ipython_log_[date].py` file. Rename this to `YourName_ex3.5.py`.

To save yourself typing, copy and paste commands from exercise 3.5. Remember the differences between python and IDL:

- Use `**` instead of `^`
- No comma after `print`
- Use `sum` instead of `total`
- Use `arange` instead of `findgen`
- You can use `linspace` instead of making & scaling the array 'by hand'

Turn in via github:

Journal file of the exercise, `YourName_ex2.pro`

Log file of the last exercise, `YourName_ex3.5.py`

Answer all Whuduzitdos from Chapters 2 & 3 in a file called `YourName_wdid2.txt`.

Turn in via github:

Text file containing the Whuduzitdos: `YourName_wdid2.txt`

Graded Homework Due by February 6th

New journal files for each part. *Be careful to get the filenames right so you don't overwrite!*
That's the normal process.

Homework 3.0: Journal file: `assignment2/YourName_hw3.0.pro`

Homework 3.1: Journal file: `assignment2/YourName_hw3.1.pro`

Homework 3.2: Journal file: `assignment2/YourName_hw3.2.pro`

Answer the questions as comments.

Homework 3.3: Journal file: `assignment2/YourName_hw3.3.pro`

Turn in via github

Journal files of the homework:

`YourName_hw3.0.pro`

`YourName_hw3.1.pro`

`YourName_hw3.2.pro`

`YourName_hw3.3.pro`

Note that the filenames have homework numbers of 3 but the turn-in directory is `assignment2`.
(this is because the 3 refers to the chapter number, not the assignment number)