```python
import scipy.constants as _sc
import numpy as np


# solar mass, radius, luminosity
Msun = 1.98848e30 # kg
Rsun = 6.957e8 # m
Lsun = 3.828e26 # W


#print("The Mean Molecular Weight for\
# interstellar gas is {:.5}".format(mue_gas))


if __name__ == "__main__":

    constants = [
        ("solar mass",Msun,"kg"),
        ("solar radius",Rsun,"m"),
        ("solar luminosity",Lsun,"W"),
        ("gravitational constant",G,"m**3 s**-2 kg**-1"),
        ("Planck constant",h,"J s"),
        ("Planck constant, reduced",hbar,"J s"),
        ("electron mass",m_e,"kg"),
        ("proton mass",m_p,"kg"),
        ("neutron mass",m_n,"kg"),
        ("atomic mass unit",m_u,"kg"),
        ("speed of light",c,"m s**-1"),
        ("Boltzmann constant",k,"J K**-1"),
        ("parsec",pc,"m"),
        ("astronomical unit",au,"m"),
        ("year",year,"s"),
        ("Stefan-Boltzmann constant",sigmaSB,"W m**-2 K**-4")
    ]
```

SNAKESHIT

A Short Musical

Book, Music, and Lyrics by D. Q. Pham

UNUK:	WOC, mezzo-soprano, an astronomy student who does not get Python.
GUDJA:	Woman, soprano, an astronomy professor who brings Python into an everyday language.
MARFIK:	Man, tenor, a student who understands Python.
ALYA:	Woman, alto, a student who understands Python.
YED:	Man, bass, a student who understands Python.

Place

Classroom

Time

1990s or 2000s

<u>Musical Number</u>

main(**S**)	Unuk
repeat(**STRANGLE**)	Company
print(**SLITHER OFF**)	Unuk and Gudja

Setting: A classroom contains a desk.

At Rise: UNUK, carrying a stack of papers, enters.

(Song: "S")

UNUK (breathlessly.)

UNUK. PLEASE TAKE A BREATH,
UNUK. SEMESTER'S DONE, UNUK.
ASTRONOMY, UNUK. WEED-OUT
COURSES OVER. DEEP RELEVANT
HOMEWORK.

(Placing the stack on the desk.)

THE SCOPE OF THE TELE.
BUTTERFLIES IN BELLY.

(Holding her belly.)

YOU ARE STELLAR, UNUK.
CONSTELLATIONS APART. TIME
TO TACKLE THE DARK.
SUPERNOVAE TO START.
LAGRANGIAN'S BEEN HARD.

(Distancing from the stack.)

(MARFIK, ALYA, and YED stroll in.)

COMMUNITIES OF STARS. SIGN
THAT ALL LEAVE A MARK.

(GUDJA, carrying a portable computer, marches in.)

A HOLY STAY, UNUK.

(GUDJA examines the stack.)

UNUK (Cont.)

THE BREAK'S BEGUN.

> (GUDJA removes the stack. She places the computer on the desk.)

> (They gather around the desk.)

> (Song: "STRANGLE")

GUDJA

ALL I ASK OF YOUR MENTAL
ENVI-MENT. SAVE IT. EXPORT
THEM. YOU ALL DID THIS IN HIGH
SCHOOL.

> (UNUK alienates the computer.)

PRESENT, WELCOME BACK TO
THE FUTURE!

> (Activating the computer.)

> (The computer throttles.)

> (UNUK chokes up.)

TIME'S JUST A SCALAR
QUANTITY THOUGH.

> (Pointing to the computer.)

FILE… COMPUTE ORBITS AND
ENERGIES FOR THE SMALLEST
TIMESTEPS FOR EACH
INTEGRATION.

GUDJA (Cont.)

(Focusing on the students.)

YED. ALYA. MARFIK. U.

(Refocusing on the computer.)

N N SERPENTIS HAS AN ELIPSICAL
PERIOD. IT IS ONLY PYTHON.

(Moving aside.)

(MARFIK, ALYA, and YED take control of the
computer.)

MARFIK	**ALYA**	**YED**
README M D.	RUN MATPLOTLIB.	OPEN NUMPY.
ERROR ANALYSIS.	ERROR ANALYSIS.	ERROR ANALYSIS.

(UNUK discreetly takes a piece of paper from the
hidden stack.)

ENERGY PLOT FUNCTIONS AND
THE OUTPUT.

(UNUK writes on the paper.)

(MARFIK, ALYA, and YED turn their attention to
UNUK.)

WHITE.	WHITE.	WHITE.

(Taking the paper from UNUK.)

COLD WHITE DWARF STAR.
CALC-LATE MASS RADIUS. FOR
US.

(Setting UNUK up to the computer.)

MARFIK (Cont.)	**ALYA** (Cont.)	**YED** (Cont.)
MAKE YOURSELF USEFUL.	TRY TO BE ON TOP.	DON'T GET LEFT BEHIND.

(UNUK holds her head.)

MARFIK	ALYA	YED
YES PRESSURE.	YES PRESSURE.	YES PRESSURE.

(Pointing to the computer.)

(UNUK glances at the paper.)

(MARFIK, ALYA, and YED rip up the paper. They step aside. They occasionally look through other papers in the hidden stack.)

UNUK (disorientedly.)

STRANGLEHOLD. I CANNOT SAY
IT IN ASTRONOMY. DON'T KNOW
COMPUTERS.

GUDJA

PYTHON IS ELEGANT SYNTAX,
SCRIPTING.

UNUK

ITS TYPE'S TOO… DYNAMICALLY.

GUDJA

PERHAPS QUIT ANALYZING THIS
TO HAVE DISCOV-RIES MADE ON
THE WEB.

(Moving aside.)

UNUK

NOTHING GOOD COMES OUT OF
RESEARCHING PYTHON ON THE
WEB.

(Typing then entering on the computer.)

WELCOME TO THE JAVA…

(Scrolling with conviction.)

(MARFIK, ALYA, and YED slithers back.)