

# Vector Position

## Software

- VPython, Python and the graphical user interface (GUI) IDLE

## Objective

Learn how to write a VPython program

- Identify how the import statement operates
- Figure out how to run a program
- Understand how to determine program errors
- Learn how to add comments to a program

Learn how to zoom and rotate objects

Learn how to effectively search for help in tutorials and reference manuals

## Group

Plot a 3D ball on the screen

- What does the “import” command do?
- Use the command “sphere()”
- Change the color of the ball
- Change the position of the ball
- Add comments to the program

Plot two balls of unequal size separated by roughly twice their diameters

- Change the view orientation
- Zoom in and out

Plot 8 balls on the corners of an imaginary cube

- Choose a different color and size for each ball

## Individual

Every program you turn in (electronically) needs to have a comment header consisting of:

- Your (full) name
- Course name
- Program name and Date
- Your lab section and instructor

You can always modify (correct) programs you have received feedback on prior to the programming due date.

Complete Computational Problem 1.P.121

## Advanced

Create a program of your own choosing.

- Make an object move
- Make an object change size

NOTE: You only need to complete one A-level lab exploration.