Schedule

- Lectures:
  - MCS-177-001, MWF 09:00AM - 09:50AM, OHS 220 (Lou)
  - MCS-177-002, MWF 12:30PM - 01:20PM, OHS 329 (Lou)
- Labs:
  - MCS-177-004, TR 09:00AM - 09:50AM, OHS 326 (Lou)
  - MCS-177-005, TR 12:30PM - 01:20PM, OHS 326 (Max)
  - MCS-177-007, TR 12:30PM - 01:20PM, BH 303 (Jeff)
  - MCS-177-006, TR 01:30PM - 02:20PM, OHS 326 (Max)

1

Materials

- **Course web page:**
  - http://homepages.gac.edu/~lyu/teaching/mcs177-f13/.
    - Lectures notes, codes, and examples used in class will be available before the lecture (so you can use as a study note) on Moodle
      - https://cas.gac.edu/cas/login
    - Projects

2

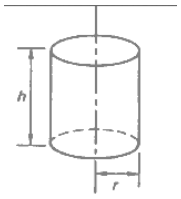
Example 1.1

Operator	Description
+	Addition - Adds values on either side of the operator
-	Subtraction - Subtracts right hand operand from left hand operand
*	Multiplication - Multiplies values on either side of the operator
/	Division - Divides left hand operand by right hand operand
%	Modulus - Divides left hand operand by right hand operand and returns remainder
**	Exponent - Performs exponential (power) calculation on operators
//	Floor Division - The division of operands where the result is the quotient in which the digits after the decimal point are removed.

Example:

- We want to calculate the volume of a cylinder

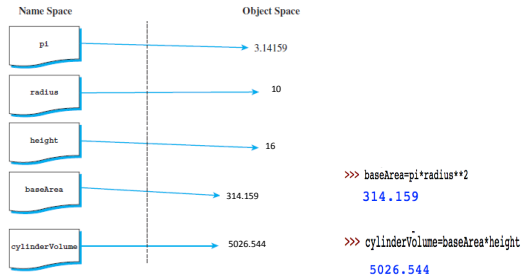
volume = area of base * height



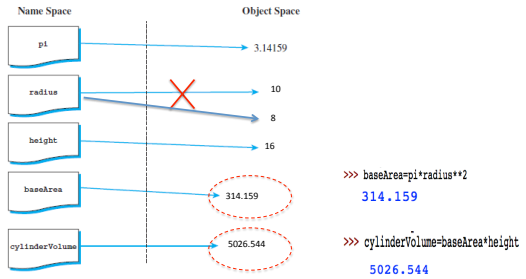
$$\text{volume} = \pi r^2 h$$

4

A reference diagram illustrating simple assignment in python



A reference diagram illustrating simple assignment in python



Summery

- (1) assignment statements calculate a concrete value and make the name refer to that value
- (2) a name can be changed to refer to a new value by again assigning to it, either with a visibly different right-hand side (8 rather than 10) or with the same right-hand side but in a new context
- (3) control-p can be used to bring back earlier entries.

Reference diagram after x = 8.0