

CPS188 Lab 1 Practice ProblemsProblem 1Base:

Write a program that stores the value of PI in a constant macro, assigns the height of a cylinder to a variable, and gets the radius from the user, which also must be assigned to a variable. Calculate the volume and surface area of the cylinder. Print out the height, radius, volume, and surface area on a single line.

$$V = \pi r^2 h$$

$$SA = 2\pi r h + 2\pi r^2$$

- Think about what your variable types would be.
- Try to limit the output of any decimal numbers to two decimal places.

See Cylinder.c for the solution.

Challenge 1: Read the radius from a text file.

Challenge 2: Write the height, radius, volume and surface area to a text file.