Day 2

C Assignments

1. Write a C program to calculate volume of a box. A box can be represented by three quantities: length, width and height in inches. Volume can be calculated as:
   `volume = height * length * width`
   Take the input from user (using scanf) and print the volume as a result. Use `float` data types for all variables
2. Write a program to calculate area and circumference of a circle using formula: $area = \pi r^2$ and $circumference = 2\pi$r. Take the input r from the user.
   Note: C doesn't have an exponentiation operator, so that you will need to multiply x by itself repeatedly to compute powers of x. (For example, $x * x\ is\ x^2$)
3. Write a program to calculate volume of a sphere with 10-meter radius, using the formula $v = 4/3\pi r^3$. Write the fraction 4/3 as 4.0f/3.0f (Also Try writing 4/3 and see what happens?). Use variable name for π as PI and store value as 22.0f/7.0f. Modify same program and prompt the user to enter the radius.
4. Write a program that asks the user to enter a value for x and then displays the value of the following polynomial: $6x^5 + 5x^4 - 4x^3 + 3x^2 + 2x + 1$
5. Write a program to calculate simple interest using formula: $si = principle * rate * time$. Take all variable as float type.