PGR107 – Python Programming
Spring 2024
Programming With Numbers and Strings

1. Write a program that asks the user to enter a weight in kilogram, then converts it to pound and prints it on the screen. Note that 1 kilogram is equal to 2.2 pounds.

   Sample run:

   Enter a weight in KG: 10
   10.0 kilogram(s) = 22.00 pound(s)

2. Write a program that asks the user to enter his/her birth year, then calculates his/her age and prints it on the screen.

   Sample run:

   Enter your birth year: 1996
   You are 27 years old.

3. Write a program that prompts the user for a radius and then prints
   - The area and circumference of a circle with that radius
   - The volume and surface area of a sphere with that radius

   Area of a circle = πr^2

   Circumference of a circle = $2 \pi r$

   Volume of a sphere = $4/3 \pi r^3$

   Surface area of a sphere = $4 \pi r^2$

4. Write a program that prompts the user for a username and password, then hides the password using (*) according to the length of the password and greets the user as follows.

   Sample run:

   Enter your username: sky_blue
   Enter your password: 123@456

   Hi 'sky_blue'. Your password [*******] -> is 7 characters long.

5. Write a program that asks the user to input
   - The number of gallons of gas in the tank
   - The fuel efficiency in miles per gallon
   - The price of gas per gallon

   Then print the cost per 100 miles and how far the car can go with the gas in the tank.