Question1:

Write a Python program that compute the area of a circle given the radius entered by the user.

$$Area = \pi r^2$$

```
# import complex math module
import cmath

a = float(input('Enter a: '))
b = float(input('Enter b: '))
c = float(input('Enter c: '))

d = (b ** 2) - (4 * a * c)

sol1 = (-b - cmath.sqrt(d)) / (2 * a)
sol2 = (-b + cmath.sqrt(d)) / (2 * a)
print('The solution are {0} and {1}'.format(sol1, sol2))
```

Question2:

Write a Python program to solve quadratic equations of the form

$$ax^2 + bx + c = 0$$

Where the coefficients a, b, and c are real numbers taken from user. The two real number solutions are derived by the formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

For this exercise, you may assume that a ≠ 0 and $b^2 \geq 4ac$

```
PI = 3.14
r = float(input("Enter the radius of a circle:"))
area = PI * r * r
print("Area of a circle = %.2f" %area)
```

Question3:

Write function to compute the length of sequence (list) as **len()** function

```
f = ("     list     ")
print(len(f))
```