**The solution to a quadratic equation is:**

Graphical user interface, application

Description automatically generated with medium confidence

**Activity**

A picture containing schematic

Description automatically generated

You will create a class called a Cylinder

* The class constructor (calls the \_\_init\_\_) will take two positional arguments, radius, and height.
* The class should have a class variable (attributes) called pi=3.14
* The class should have object attributes radius, and height.
* The class should have a method for calculating the volume of the cylinder using the formula



* The class should also have a method for calculating the surface area of the cylinder using the formula.

Graphical user interface, text

Description automatically generated

* Create a method that can be used to set or update the height of the cylinder. Just assume this cylinder is some object whose height can be reduced or increased.
* Create a string representation method that provides information about the radius and height as well as the volume and surface area of the cylinder.
* Write a test to make sure that the volume method and surface area method are returning the right results. Use the radius =10 and height =10 to test your methods; the corresponding volume should be 3140 while the corresponding correct surface area is 1256, test 2000 for both methods to see if the test fails.