Name:	**QUID:**

Quiz instructions: The quiz time is 20 minutes. Use proper indentation/alignment in your code, the line of the answer sheets are formatted for this purpose.

Q.2 ***[100 POINTS] [Students' average needed time to solve and review is 15 MINUTES]***

Write a program that displays the message "Welcome to Cylinder Calculator!"

```
Welcome to Cylinder Calculator!
```

Then asks the user to enter the radius of the cylinder then the height of the cylinder. Your program must validate the values of the radius and the height to be positive values.

```
Enter the radius: -20
Invalid value
Enter the radius: 0
Invalid value
Enter the radius: 2.5
Enter the height: 4.3
```

The program then displays the menu below

```
Options:
(1) Calculate and display the volume
(2) Calculate and display the surface area
(3) Exit
```

The program prompts the user to enter a choice. If the user enters 1, the program calculates the volume and display it with two digits for the fraction part and exits. If the user enters 2, the program calculates the surface area and display it with two digits for the fraction part and exits. The program exits if the user types any number other than 1 or 2.

```
Your choice: 2
Surface area = 66.29
```

Hints

For a cylinder with radius r and height h:

- $volume = \pi r^2 h$
- $surface\ area = 2\pi r^2 + 2\pi rh$

Name:	QUID:

```python
import math
MENU = f'(1) Calculate and display the volume\n\
(2) Calculate and display the surface area\n\
(3) Exit'
print('Welcom to Cylinder Calculator!')
radius = float(input('Enter the radius: '))
while radius<=0:
    print('Invalid value')
    radius = float(input('Enter the radius: '))
height = float(input('Enter the height: '))
while height<=0:
    print('Invalid value')
    height = float(input('Enter the height: '))
print(MENU)
option = int(input('Your choice: '))
while option !=1 and option !=2 and option !=3:
    print('Invalid value')
    option = int(input('Your choice: '))
if option == 1:
    volume = math.pi*math.pow(radius,2)*height
    print(f'Volume = {volume:.2f}')
elif option == 2:
    surfaceArea = 2*math.pi*math.pow(radius,2)+2*math.pi*height
    print(f'Surface Area = {surfaceArea:.2f}')
else:
    exit(0)
```