ASSIGNMENT 1

Question1:

- Create the variable first name and your last name and Compare the length of your first name and your last name.
- Using the len() built-in function, find the length of your first name

```
first_name = 'Warisha'
last_name = 'Zakai'
print('First name: ',first_name)
print('Last name: ',last_name)
print('Length of first name: ',len(first_name))
print('Length of last name: ',len(last_name))
if len(first_name) > len(last_name):
    result = "Your first name is longer than your last name."
elif len(first_name) < len(last_name):
    result = "Your first name is shorter than your last name."
else:
    result = "Your first name is the same length as your last name."
print(result)
```

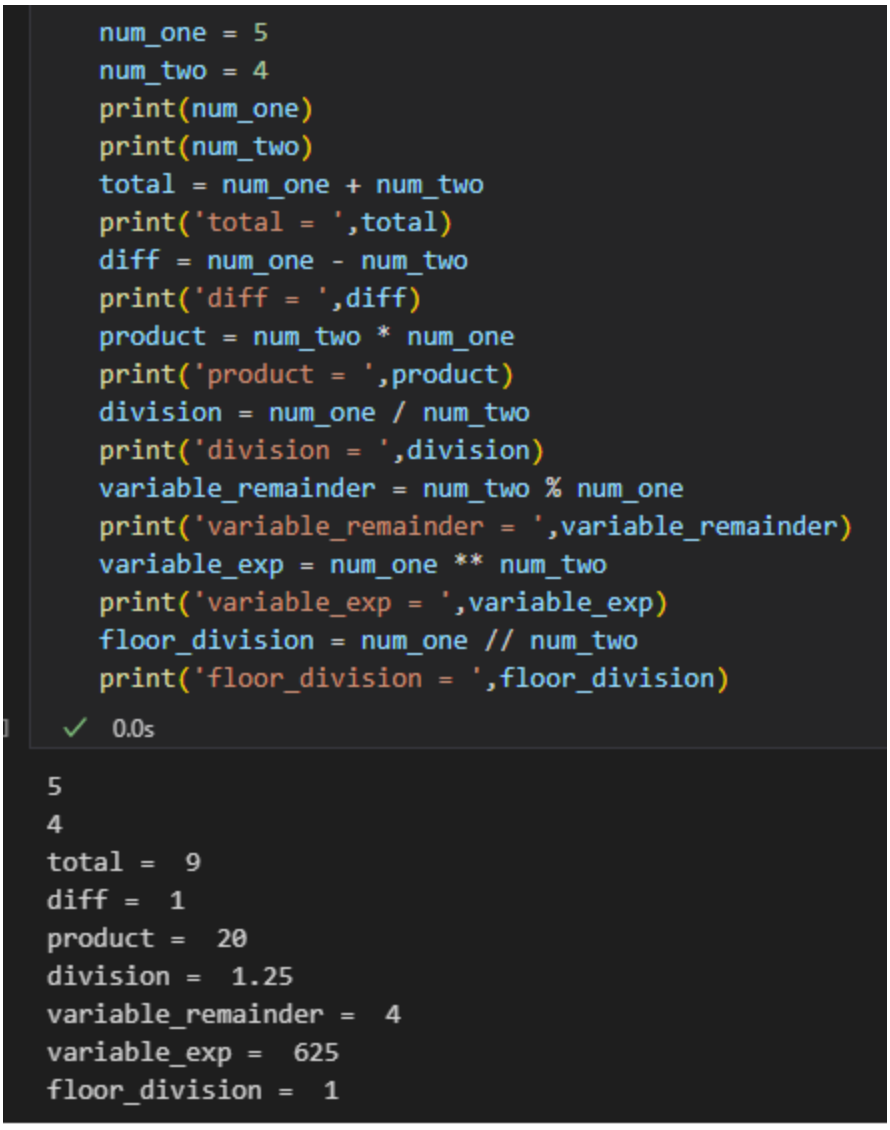
[16] ✓ 0.0s

```
First name:  Warisha
Last name:  Zakai
Length of first name:  7
Length of last name:  5
Your first name is longer than your last name.
```

Question 2:

Declare 5 as num_one and 4 as num_two

- Add num_one and num_two and assign the value to a variable total
- Subtract num_two from num_one and assign the value to a variable diff
- Multiply num_two and num_one and assign the value to a variable product
- Divide num_one by num_two and assign the value to a variable division
- Use modulus division to find num_two divided by num_one and assign the value to a variable remainder
- Calculate num_one to the power of num_two and assign the value to a variable exp
- Find floor division of num_one by num_two and assign the value to a variable floor_division



```
num_one = 5
num_two = 4
print(num_one)
print(num_two)
total = num_one + num_two
print('total = ',total)
diff = num_one - num_two
print('diff = ',diff)
product = num_two * num_one
print('product = ',product)
division = num_one / num_two
print('division = ',division)
variable_remainder = num_two % num_one
print('variable_remainder = ',variable_remainder)
variable_exp = num_one ** num_two
print('variable_exp = ',variable_exp)
floor_division = num_one // num_two
print('floor_division = ',floor_division)
```

✓ 0.0s

```
5
4
total =  9
diff =  1
product =  20
division =  1.25
variable_remainder =  4
variable_exp =  625
floor_division =  1
```

Question 3:

- The radius of a circle is 30 meters.
- Calculate the area of a circle and assign the value to a variable name of area_of_circle
- Calculate the circumference of a circle and assign the value to a variable name of circum_of_circle
- Take radius as user input and calculate the area.

```
radius = 30 #meters
print('Radius = ',radius)
pi = 3.14159
area_of_circle = pi * (radius ** 2)
print('Area of circle = ',area_of_circle)
circum_of_circle = 2 * pi * radius
print('Circumference of a circle = ',circum_of_circle )
```

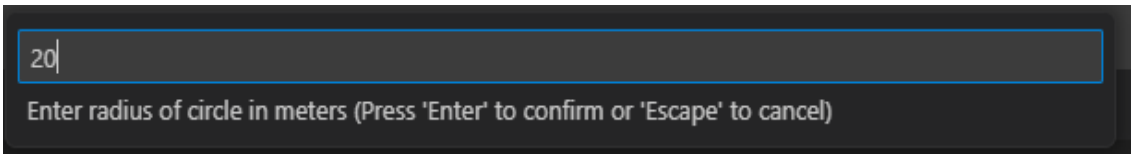
[28] ✓ 0.0s

```
Radius =  30
Area of circle =  2827.431
Circumference of a circle =  188.4954
```

```
radius = float(input('Enter radius of circle in meters'))
print('Radius = ',radius)
pi = 3.14159
area_of_circle = pi * (radius ** 2)
print('Area of circle = ',area_of_circle)
```

[1] ✓ 12.0s

```
Radius =  20.0
Area of circle =  1256.636
```



Question 4:

A grocery store sells a bag of ice for $1.25 and makes a 20% profit. If it sells 500 bags of ice, how much total profit does it make?

```
    selling_price_per_bag = 1.25  #$
    print('selling price per bag = $',selling_price_per_bag)
    profit_percentage = 0.20      #20%
    print('profit percetage = ',profit_percentage)
    number_of_bags_sold = 500
    print('number of bags sold = ',number_of_bags_sold)
    profit_per_bag = selling_price_per_bag * profit_percentage
    print('profit per bag = $',profit_per_bag)
    total_profit = profit_per_bag * number_of_bags_sold
    print('total profit made from selling 500 bags of ice: $',total_profit)
```

19] ✓ 0.0s

```
selling price per bag = $ 1.25
profit percetage =  0.2
number of bags sold =  500
profit per bag = $ 0.25
total profit made from selling 500 bags of ice: $ 125.0
```

Question 5:

A travel company wants to fly a plane to the Bahamas. Flying the plane costs 5000 dollars. So far, 29 people have signed up for the trip. If the company charges 200 dollars per ticket, what is the profit made by the company? Create variables for each numeric quantity and use appropriate arithmetic operations.

```
cost_of_flying = 5000  #$
print('cost of lying = $',cost_of_flying)
number_of_people_signed_up = 29
print('number if people signed up = ',number_of_people_signed_up)
price_per_ticket = 200  #$
print('price per ticket = $',price_per_ticket)
total_revenue = number_of_people_signed_up * price_per_ticket
print('total revenue = $',total_revenue)
profit = total_revenue - cost_of_flying
print('profit made by the company = $',profit)
```

✓ 0.0s

```
cost of lying = $ 5000
number if people signed up =  29
price per ticket = $ 200
total revenue = $ 5800
profit made by the company = $ 800
```