

1. The radius of a circle is 5.5. Write a script to compute the area of a circle.

```
In [8]: #area_of_circle = PI*(r**2)
PI = 3.14
r = 5.5
area_of_circle = PI*(r**2)
print(area_of_circle)

94.985
```

2. Write a program where Python prints your name, then print them in reverse order with a comma between them. Put this in the same cell.

For example:

Sophia Barrett
Barrett, Sophia

```
In [10]: first_name = 'Katherine'
last_name = 'Liranzo'
print(first_name,last_name)
print(last_name, ',', first_name)

Katherine Liranzo
Liranzo , Katherine
```

3. Write a program to test if a number is divisible by 5.

```
In [16]: number = int(input(" Please Enter a number : "))

if((number % 5 == 0)):
    print("Yes, it is divisible by 5")
else:
    print("No, it is not divisible by 5")

Please Enter a number : 13
No, it is not divisible by 5
```

4. What is the output of the following program?

```
a = 1
b = a 2
c = 2 b + 1
print(a)
print(b)
print(c)
```

```
In [11]: a = 1
b = a*2
c = 2*b+1
print(a)
print(b)
print(c)
```

1
2
5

5. What is the output of the following program?

```
a = 2
b = a * 2
c = b ** a
a = c % 2
print(a)
print(b)
print(c)
```

```
In [12]: a = 2
b = a*2
c = b**a
a = c % 2
print(a)
print(b)
print(c)
```

0
4
16

6. What is the output of the following program?

```
a = 5
b = a // 2
c = a / 2
a = a % 2
print(a)
print(b)
print(c)
```

```
In [13]: a = 5
b = a // 2
c = a / 2
a = a % 2
print(a)
print(b)
print(c)
```

1
2
2.5

7. Type each of the following commands. Note each response.

```
print("Hello, world!")
print("Hello", "world!")
print(3)
print(3.0)
print(2 + 3)
print(2.0 + 3.0)
print(2 ^ 3)
print(2 ** 3) print(7 / 3)
print(7 // 3)
```

```
In [14]: print("Hello, world!")
print("Hello", "world!")
print(3)
print(3.0)
print(2 + 3)
print(2.0 + 3.0)
print(2 * 3)
print(2 ** 3)
print(7 / 3)
print(7 // 3)
```

Hello, world!
Hello world!
3
3.0
5
5.0
6
8
2.3333333333333335
2

8.

Create a program with a name and age. Then have it print out a message addressed to name that tells them the year that they will turn 100 years old.

```
In [21]: print('Hello!')
name = input('Please Enter Your Name :')
age = int(input('Please Enter Your Age :'))
print('I am going to tell you the year you will turn ONE HUNDRED years old! Good luck!')
print('You will be ONE HUNDRED years old in...', (100-age) + 2020)
```

Hello!
Please Enter Your Name :katherine
Please Enter Your Age :26
I am going to tell you the year you will turn ONE HUNDRED years old! Good luck!
You will be ONE HUNDRED years old in... 2094

9. Create a sequence of numbers from 3 to 19, but increment by 2.

```
In [25]: list(range(3,21,2))

Out[25]: [3, 5, 7, 9, 11, 13, 15, 17, 19]
```

10. Try to solve this problem on your own first, then check your results with python.

```
a = 21 b = 10 c = 0

c = a + b print "Line 1 - Value of c is ", c

c += a print "Line 2 - Value of c is ", c

c *= a print "Line 3 - Value of c is ", c

c /= a print "Line 4 - Value of c is ", c

c = 2 c %= a print "Line 5 - Value of c is ", c

c **= a print "Line 6 - Value of c is ", c

c //= a print "Line 7 - Value of c is ", c
```

```
In [23]: a = 21
b = 10
c = 0

c = a + b
print("Line 1 - Value of c is ", c)

c += a
print("Line 2 - Value of c is ", c)

c *= a
print("Line 3 - Value of c is ", c)

c /= a
print("Line 4 - Value of c is ", c)

c = 2
c %= a
print("Line 5 - Value of c is ", c)

c **= a
print("Line 6 - Value of c is ", c)

c //= a
print("Line 7 - Value of c is ", c)
```

Line 1 - Value of c is 31
Line 2 - Value of c is 52
Line 3 - Value of c is 1092
Line 4 - Value of c is 52.0
Line 5 - Value of c is 2
Line 6 - Value of c is 2097152
Line 7 - Value of c is 99864

In []: