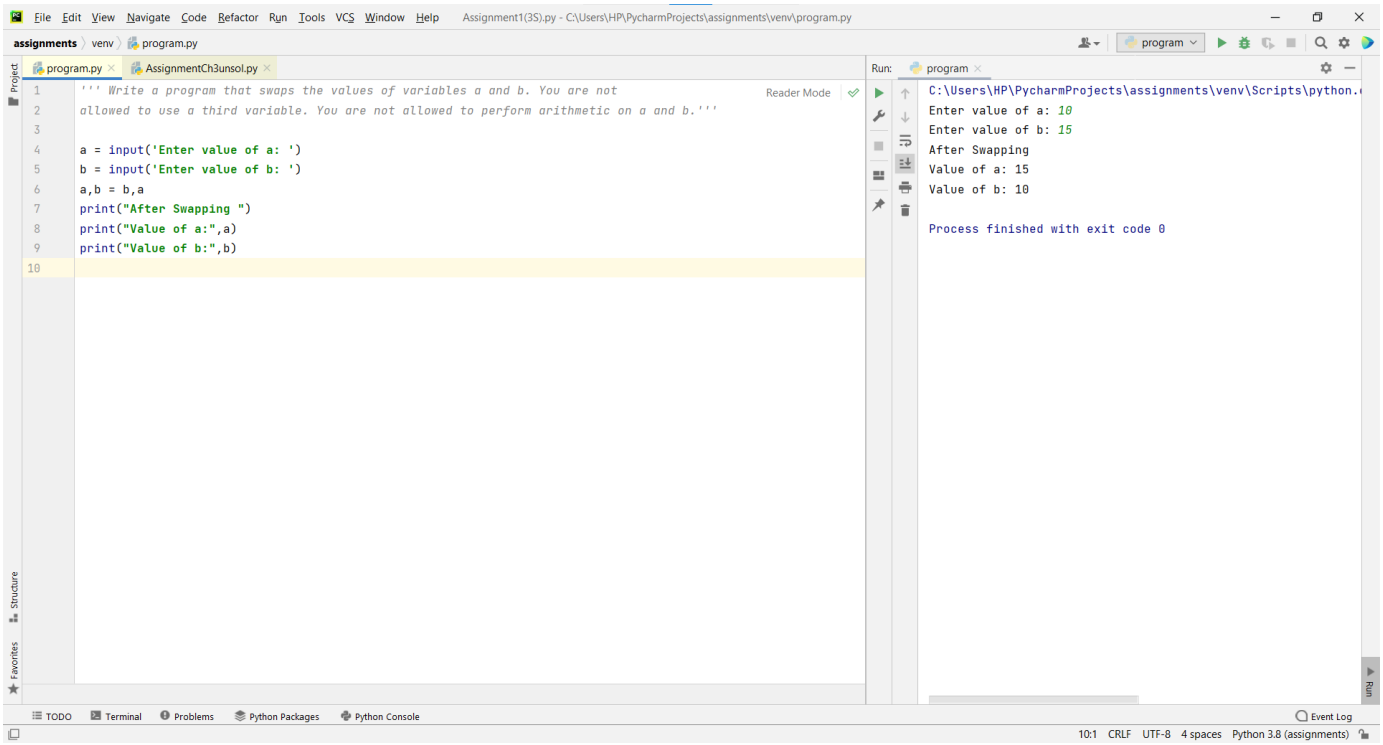
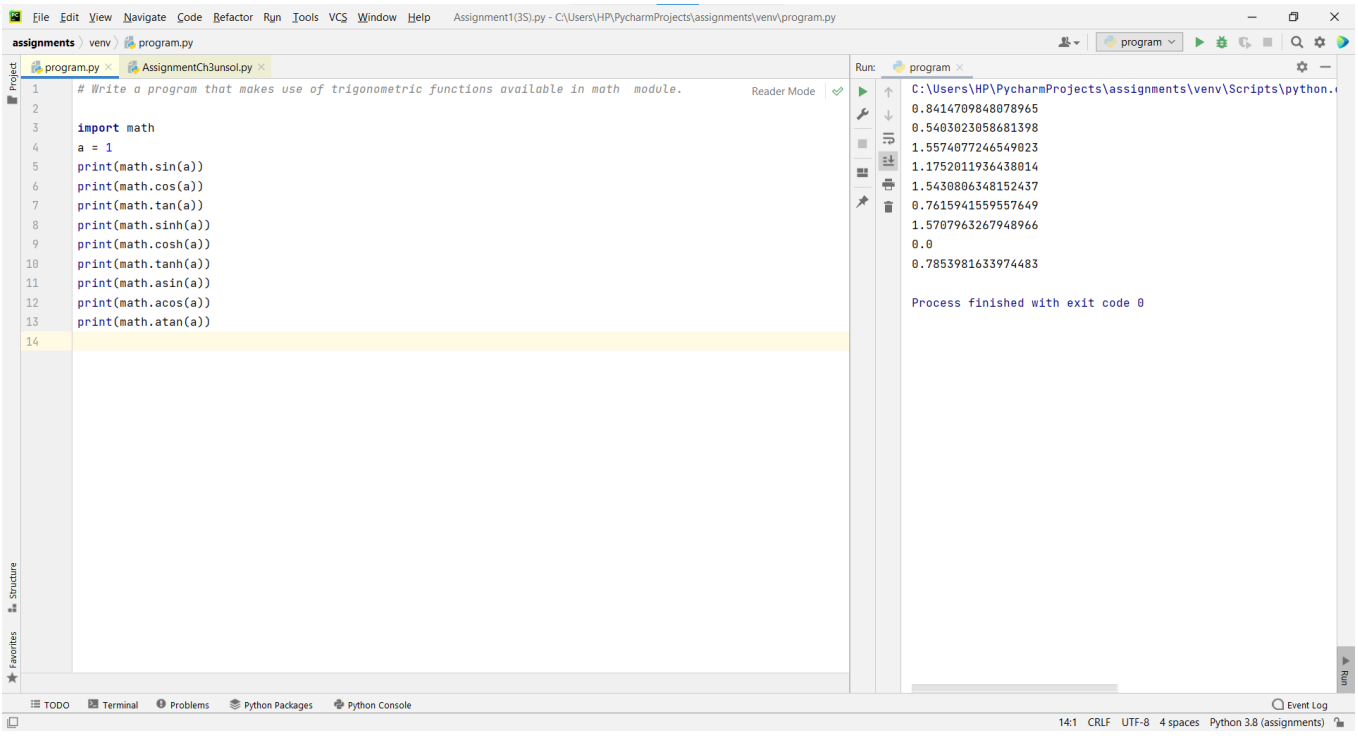
Name: Ankita Shinde **Roll no:4252** **Subject: Python Programming**

Unsolved Program Assignment -3



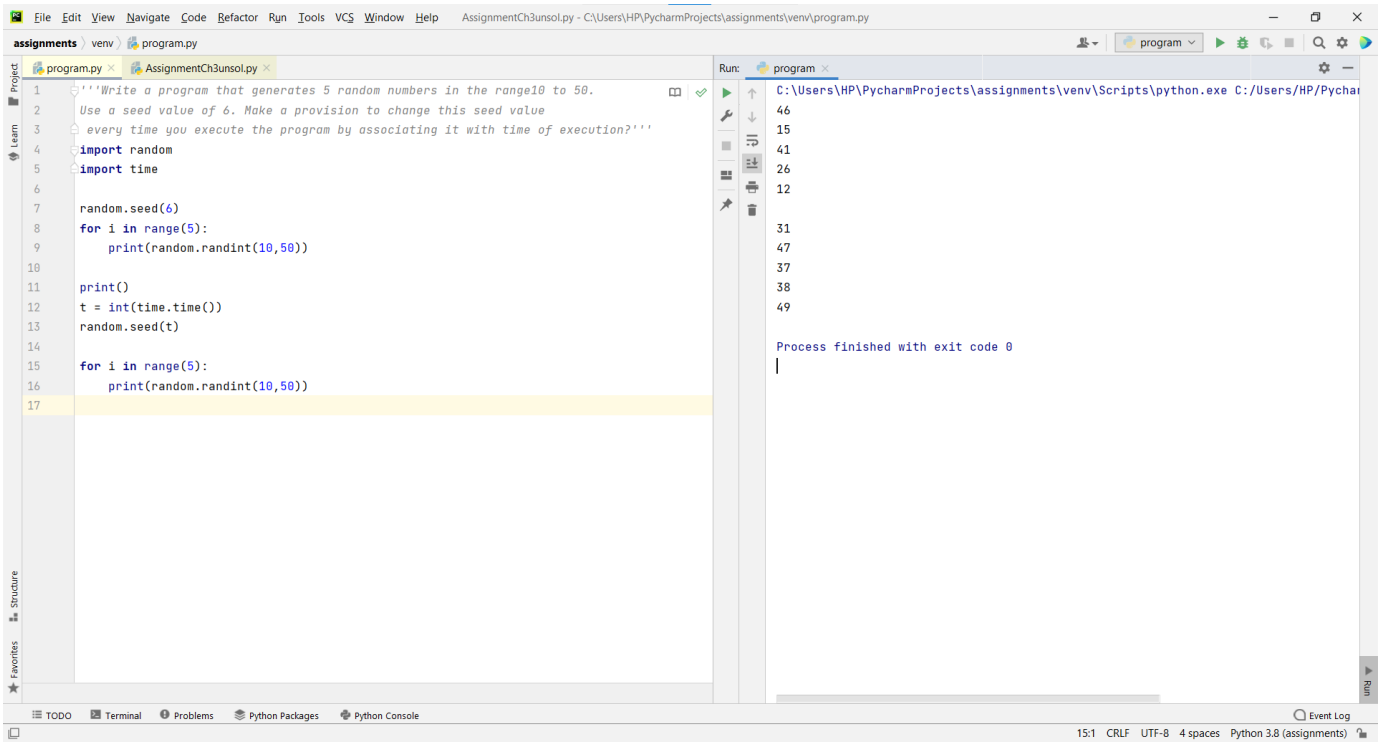
```
''' Write a program that swaps the values of variables a and b. You are not
allowed to use a third variable. You are not allowed to perform arithmetic on a and b.'''

a = input('Enter value of a: ')
b = input('Enter value of b: ')
a,b = b,a
print("After Swapping ")
print("Value of a:",a)
print("Value of b:",b)
```

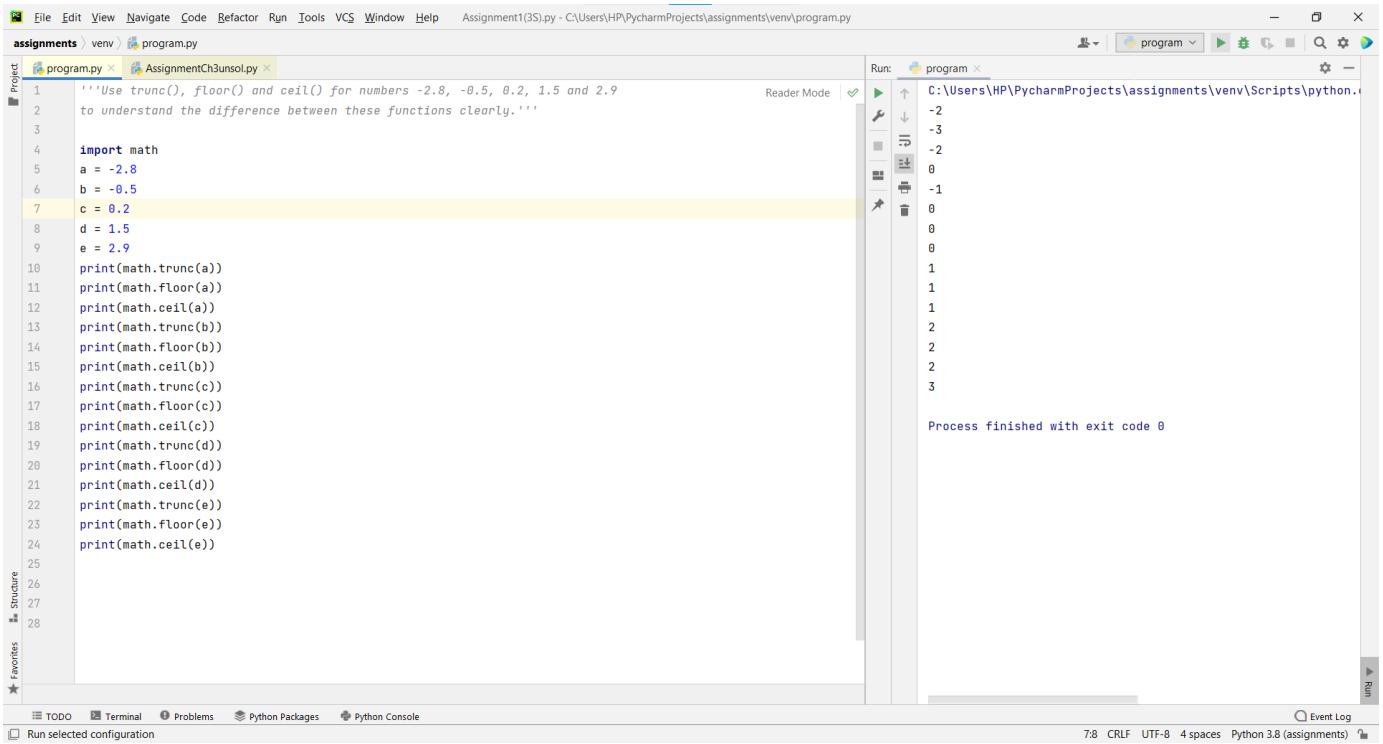
```
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.
Enter value of a: 10
Enter value of b: 15
After Swapping
Value of a: 15
Value of b: 10

Process finished with exit code 0
```

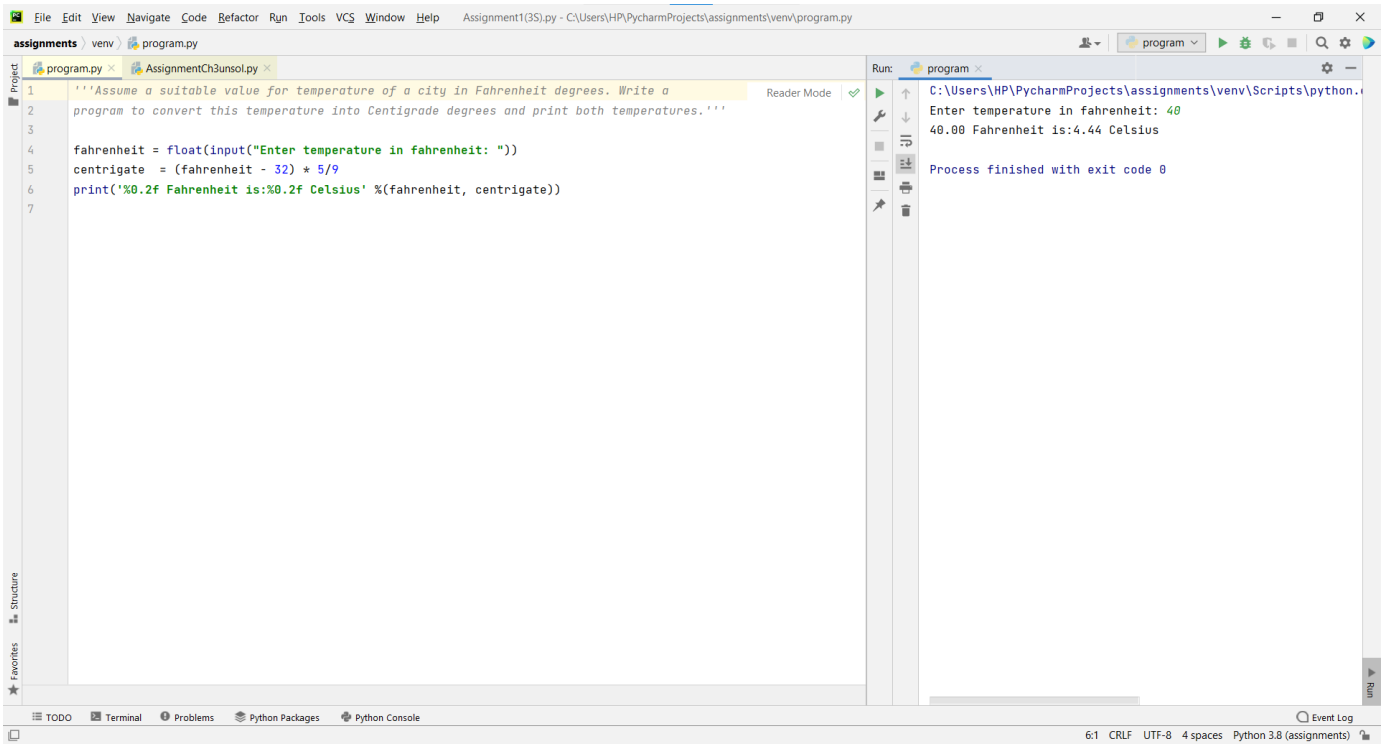


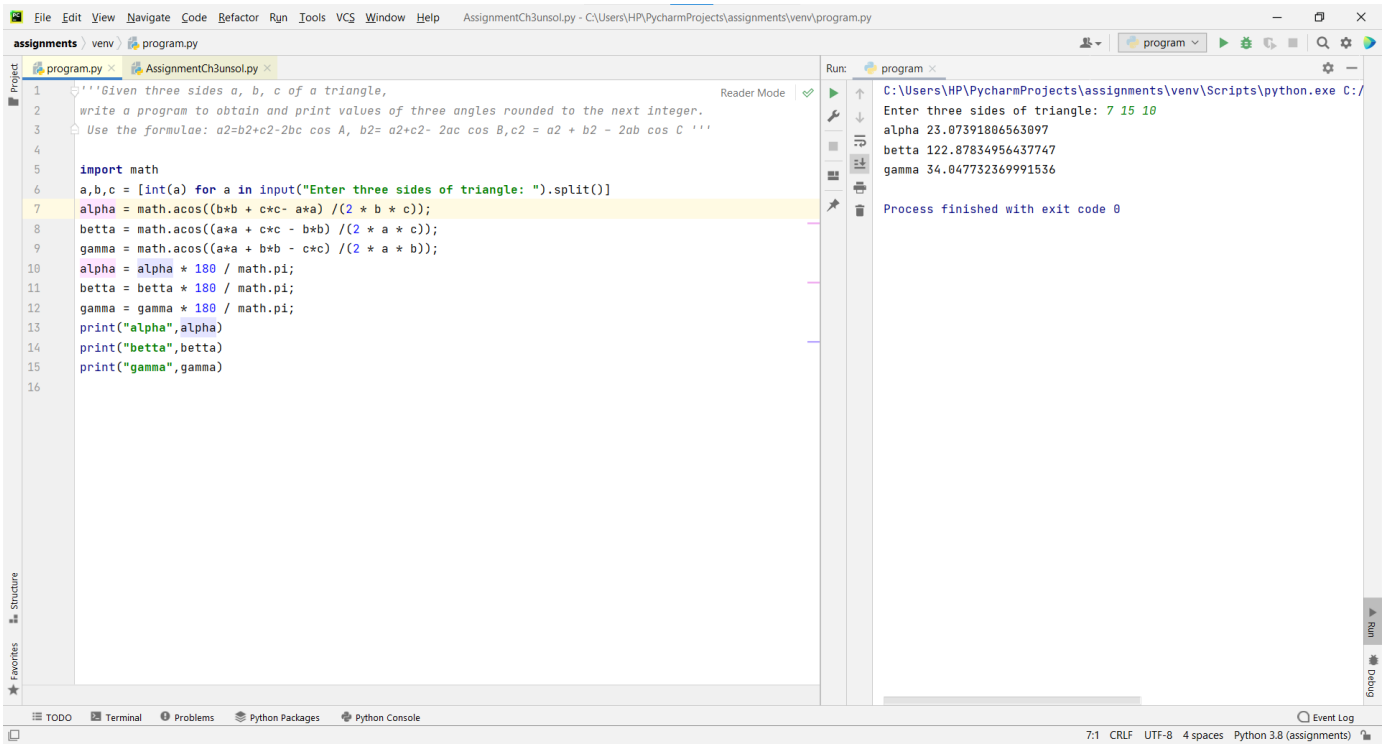
```
# Write a program that makes use of trigonometric functions available in math  module.

import math
a = 1
print(math.sin(a))
print(math.cos(a))
print(math.tan(a))
print(math.sinh(a))
print(math.cosh(a))
print(math.tanh(a))
print(math.asin(a))
print(math.acos(a))
print(math.atan(a))
```

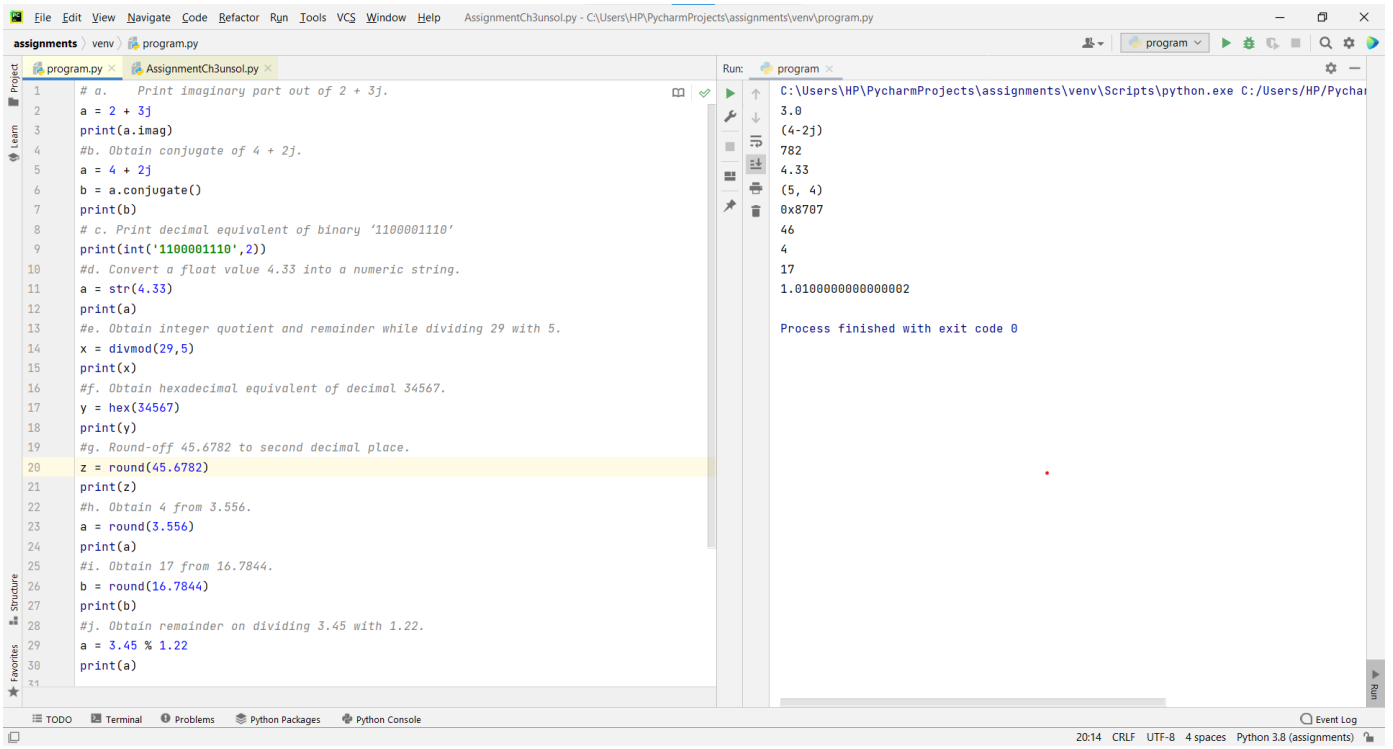
```
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.
0.8414709848078965
0.5403023058681398
1.5574077246549023
1.1752011936438014
1.5430806348152437
0.7615941559557649
1.5707963267948966
0.0
0.7853981633974483

Process finished with exit code 0
```


File Edit View Navigate Code Refactor Run Tools VCS Window Help
AssignmentCh3unsol.py - C:\Users\HP\PycharmProjects\assignments\venv\program.py
assignments venv program.py
program
program.py
AssignmentCh3unsol.py
'''Write a program that generates 5 random numbers in the range10 to 50.
Use a seed value of 6. Make a provision to change this seed value
every time you execute the program by associating it with time of execution?'''
import random
import time
random.seed(6)
for i in range(5):
print(random.randint(10,50))
print()
t = int(time.time())
random.seed(t)
for i in range(5):
print(random.randint(10,50))
Run: program
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.exe C:/Users/HP/Pychar
46
15
41
26
12
31
47
37
38
49
Process finished with exit code 0
TODO Terminal Problems Python Packages Python Console
Event Log
15:1 CRLF UTF-8 4 spaces Python 3.8 (assignments)


File Edit View Navigate Code Refactor Run Tools VCS Window Help
Assignment1(3S).py - C:\Users\HP\PycharmProjects\assignments\venv\program.py
assignments venv program.py
program
program.py
AssignmentCh3unsol.py
Reader Mode
'''Use trunc(), floor() and ceil() for numbers -2.8, -0.5, 0.2, 1.5 and 2.9
to understand the difference between these functions clearly.'''
import math
a = -2.8
b = -0.5
c = 0.2
d = 1.5
e = 2.9
print(math.trunc(a))
print(math.floor(a))
print(math.ceil(a))
print(math.trunc(b))
print(math.floor(b))
print(math.ceil(b))
print(math.trunc(c))
print(math.floor(c))
print(math.ceil(c))
print(math.trunc(d))
print(math.floor(d))
print(math.ceil(d))
print(math.trunc(e))
print(math.floor(e))
print(math.ceil(e))
Run: program
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.
-2
-3
-2
0
-1
0
0
0
1
1
1
2
2
2
3
Process finished with exit code 0
TODO Terminal Problems Python Packages Python Console
Event Log
Run selected configuration
7:8 CRLF UTF-8 4 spaces Python 3.8 (assignments)


File Edit View Navigate Code Refactor Run Tools VCS Window Help
Assignment1(3S).py - C:\Users\HP\PycharmProjects\assignments\venv\program.py
assignments venv program.py
program
program.py
AssignmentCh3unsol.py
Reader Mode
'''Assume a suitable value for temperature of a city in Fahrenheit degrees. Write a
program to convert this temperature into Centigrade degrees and print both temperatures.'''
fahrenheit = float(input("Enter temperature in fahrenheit: "))
centrigate = (fahrenheit - 32) * 5/9
print('%0.2f Fahrenheit is:%0.2f Celsius' %(fahrenheit, centrigate))
Run: program
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.
Enter temperature in fahrenheit: 40
40.00 Fahrenheit is:4.44 Celsius
Process finished with exit code 0
TODO Terminal Problems Python Packages Python Console
Event Log
6:1 CRLF UTF-8 4 spaces Python 3.8 (assignments)


File Edit View Navigate Code Refactor Run Tools VCS Window Help
AssignmentCh3unsol.py - C:\Users\HP\PycharmProjects\assignments\venv\program.py
assignments venv program.py
program
program.py
AssignmentCh3unsol.py
Reader Mode
'''Given three sides a, b, c of a triangle,
write a program to obtain and print values of three angles rounded to the next integer.
Use the formulae: a2=b2+c2-2bc cos A, b2= a2+c2- 2ac cos B,c2 = a2 + b2 – 2ab cos C '''
import math
a,b,c = [int(a) for a in input("Enter three sides of triangle: ").split()]
alpha = math.acos((b*b + c*c- a*a) /(2 * b * c));
betta = math.acos((a*a + c*c - b*b) /(2 * a * c));
gamma = math.acos((a*a + b*b - c*c) /(2 * a * b));
alpha = alpha * 180 / math.pi;
betta = betta * 180 / math.pi;
gamma = gamma * 180 / math.pi;
print("alpha",alpha)
print("betta",betta)
print("gamma",gamma)
Run: program
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.exe C:/
Enter three sides of triangle: 7 15 10
alpha 23.07391806563097
betta 122.87834956437747
gamma 34.047732369991536
Process finished with exit code 0
TODO Terminal Problems Python Packages Python Console
Event Log
7:1 CRLF UTF-8 4 spaces Python 3.8 (assignments)


File Edit View Navigate Code Refactor Run Tools VCS Window Help
AssignmentCh3unsol.py - C:\Users\HP\PycharmProjects\assignments\venv\program.py
assignments venv program.py
program
program.py
AssignmentCh3unsol.py
# a. Print imaginary part out of 2 + 3j.
a = 2 + 3j
print(a.imag)
#b. Obtain conjugate of 4 + 2j.
a = 4 + 2j
b = a.conjugate()
print(b)
# c. Print decimal equivalent of binary '1100001110'
print(int('1100001110',2))
#d. Convert a float value 4.33 into a numeric string.
a = str(4.33)
print(a)
#e. Obtain integer quotient and remainder while dividing 29 with 5.
x = divmod(29,5)
print(x)
#f. Obtain hexadecimal equivalent of decimal 34567.
y = hex(34567)
print(y)
#g. Round-off 45.6782 to second decimal place.
z = round(45.6782)
print(z)
#h. Obtain 4 from 3.556.
a = round(3.556)
print(a)
#i. Obtain 17 from 16.7844.
b = round(16.7844)
print(b)
#j. Obtain remainder on dividing 3.45 with 1.22.
a = 3.45 % 1.22
print(a)
Run: program
C:\Users\HP\PycharmProjects\assignments\venv\Scripts\python.exe C:/Users/HP/Pychar
3.0
(4-2j)
782
4.33
(5, 4)
0x8707
46
4
17
1.0100000000000002
Process finished with exit code 0
TODO Terminal Problems Python Packages Python Console
Event Log
20:14 CRLF UTF-8 4 spaces Python 3.8 (assignments)