

1

21107075_assignment3.py

fd.py

×

fd.py

1

1

2

num= int(input("Type any number: "))

3

print(bin(num)[2:])

4

PROBLEMS

TERMINAL

OUTPUT

powershell
+
-

^
X

Windows PowerShell

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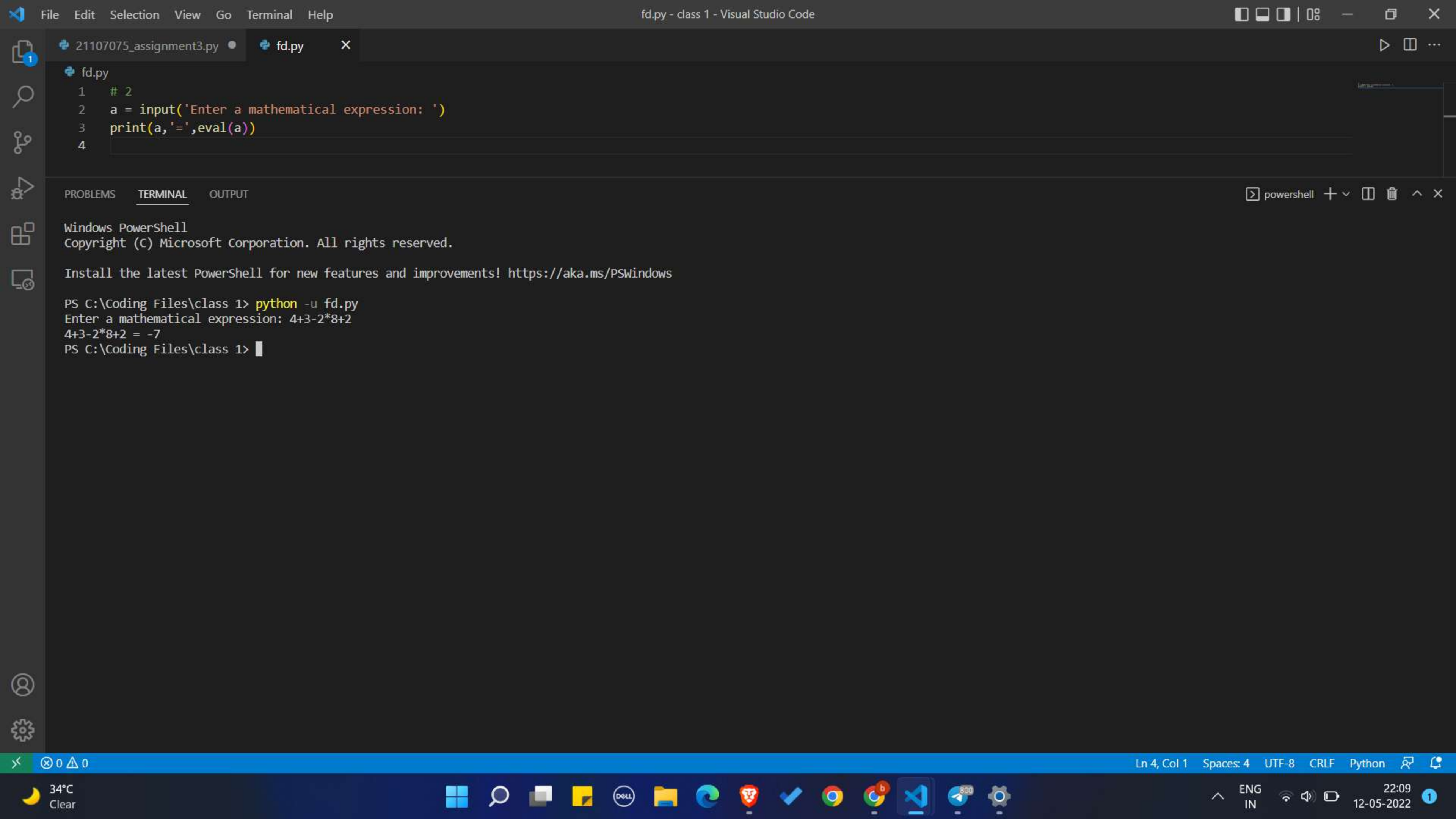
Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

PS C:\Coding Files\class 1> python -u fd.py

Type any number: 43

101011

PS C:\Coding Files\class 1>



21107075_assignment3.py

fd.py

fd.py

```
1 # 2
2 a = input('Enter a mathematical expression: ')
3 print(a, '=', eval(a))
4
```

PROBLEMS TERMINAL OUTPUT

powershell + -

Windows PowerShell

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PS C:\Coding Files\class 1> python -u fd.py

Enter a mathematical expression: 4+3-2*8+2

4+3-2*8+2 = -7

PS C:\Coding Files\class 1>

0 0

Ln 4, Col 1 Spaces: 4 UTF-8 CRLF Python

FileEditSelectionViewGoTerminalHelp

fd.py - class 1 - Visual Studio Code

21107075_assignment3.pyfd.py

fd.py

```
1  # 3
2  import math
3  # a)
4  print('a')
5  exp= (3+4)*5
6  print(exp)
7  # b)
8  print('b')
9  n= float(input("Specify the value of n to be used in expression n(n-1)/2 : "))
10 exp_2= (n*(n-1))/2
11 print("Resultant value:",exp_2)
12 # c)
13 print('c')
14 r= float(input("Specify the value of r to be used in expression 4πr^2 : "))
15 exp_3= 4*math.pi*r*r
16 print(exp_3)
```

PROBLEMS

TERMINAL

OUTPUT

Windows PowerShell
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PS C:\Coding Files\class 1> python -u fd.py
a)
35
b)
Specify the value of n to be used in expression n(n-1)/2 : 5
Resultant value: 10.0
c)
Specify the value of r to be used in expression 4πr^2 : 6
452.3893421169302
PS C:\Coding Files\class 1>
PS C:\Coding Files\class 1>

+ ^ v

powershell

powershell

powershell

python

powershell

python

powershell

34°C
Clear

Windows Taskbar Icons

Ln 17, Col 7

Spaces: 4

UTF-8

CRLF

Python

22:33
12-05-2022


```
17 # d)
18 print('d')
19 r= float(input("Specify the value of r: "))
20 a= float(input("Enter first angle: "))
21 b= float(input("Enter second angle: "))
22 print(math.sqrt((r*math.cos(a)**2) + (r*math.sin(b)**2)))
23 # e)
24 print('e')
25 x1 = float(input('Enter x coordinate of first point: '))
26 y1 = float(input('Enter y coordinate of first point: '))
27 x2 = float(input('Enter x coordinate of second point: '))
28 y2 = float(input('Enter y coordinate of second point: '))
29 print((y2-y1)/(x2-x1))
```

Windows PowerShell

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```
PS C:\Coding Files\class 1> python -u fd.py
```

d)

Specify the value of r: 9

Enter first angle: 0

Enter second angle: 66

3.001057259370444

e)

Enter x coordinate of first point: 5

Enter y coordinate of first point: 7.1

Enter x coordinate of second point: 3

Enter y coordinate of second point: 5.7

0.69999999999999997

```
PS C:\Coding Files\class 1>
```

$$+ \vee \wedge \times$$

```
> powershell
```

```
> powershell
```

> powershell

```
> python
```

```
> powershell
```

```
> python
```

> powershell

```
> python
```

```
> powershell
```

> powershell

```
> powershell
```

$+, \vee, \wedge, \times$

- powershell
- powershell
- powershell
- python
- powershell
- python
- powershell
- python
- powershell
- powershell
- powershell
- powershell
- powershell

a) [0, 1, 2, 3, 4]
b) [3, 4, 5, 6, 7, 8, 9]
c) [4, 7, 10]
d) [15, 13, 11, 9, 7]
e) []

PS C:\Coding Files\class

File Edit Selection View Go Terminal Help

21107075_assignment3.py fd.py

fd.py

```
1 # 4
2 # a)
3 print('a')
4 for i in range(5):
5     print(i)
6 # b)
7 print('b')
8 for i in range(3,10):
9     print(i)
10 # c)
11 print('c')
12 for i in range(4,13,3):
13     print(i)
```

PROBLEMS TERMINAL OUTPUT

Windows PowerShell
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PS C:\Coding Files\class 1> python -u fd.py

a)
1
2
3
4
b)
3
4
5
6
7
8
9
c)
4
7
10
d)
15
13

powershell
powershell
powershell
python
powershell
python
powershell
python
powershell
powershell
powershell
powershell

```
21107075_assignment3.py • fd.py ×  
fd.py  
14 # d)  
15 print('d')  
16 for i in range(15,5,-2):  
17     print(i)  
18 # e)  
19 print('e')  
20 for i in range(5,3): # If a user wants to decrement, then the user needs steps to be a negative number  
21     print(i)
```

PROBLEMS TERMINAL OUTPUT

1
2
3
4
b)
3
4
5
6
7
8
9
c)
4
7
10
d)
15
13
11
9
7
e)
PS C:\Coding Files\class 1>

+ - ^ ×
powershell
powershell
powershell
python
powershell
python
powershell
python
powershell
powershell
powershell
powershell

 fd.py

 fd.py

```
2 h_atoms= int(input("Number of Hydrogen atoms in the molecule: "))
```

```
3 o_atoms= int(input("Number of Oxygen atoms in the molecule: "))
```

```
4 c_atoms= int(input("Number of Carbon atoms in the molecule: "))
```

```
5 mol_wt= (h_atoms*1.00794) + (o_atoms*15.9994) + (c_atoms*12.0107)
```

```
6 print(mol_wt)
```

PROBLEMS TERMINAL OUTPUT

 powershell

Windows PowerShell

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```
PS C:\Coding Files\class 1> python -u fd.py
```

Number of Hydrogen atoms in the molecule: 2

Number of Oxygen atoms in the molecule: 2

Number of Carbon atoms in the molecule: 1

46.02538

```
PS C:\Coding Files\class 1> 
```