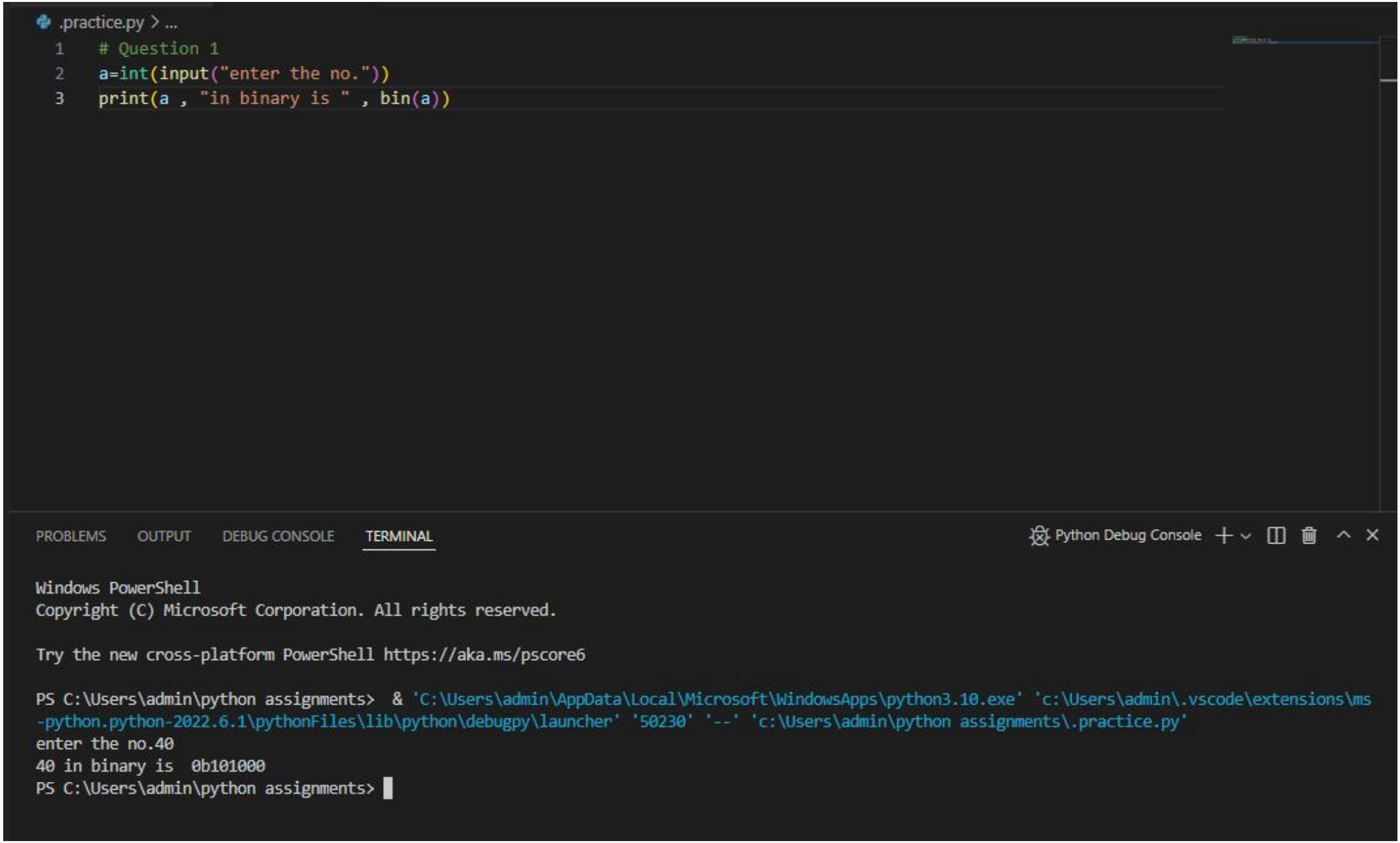
.practice.py > ...
1 # Question 1
2 a=int(input("enter the no."))
3 print(a , "in binary is " , bin(a))
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
Python Debug Console
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\admin\python assignments> & 'C:\Users\admin\AppData\Local\Microsoft\WindowsApps\python3.10.exe' 'c:\Users\admin\.vscode\extensions\ms-python.python-2022.6.1\pythonFiles\lib\python\debugpy\launcher' '50230' '--' 'c:\Users\admin\python assignments\.practice.py'
enter the no.40
40 in binary is 0b101000
PS C:\Users\admin\python assignments>

.practice.py > ...

```python
# Question 2

# Function to add two numbers
def add(num1, num2):
    return num1 + num2

# Function to subtract two numbers
def subtract(num1, num2):
    return num1 - num2

# Function to multiply two numbers
def multiply(num1, num2):
    return num1 * num2

# Function to divide two numbers
def divide(num1, num2):
    return num1 / num2

print("Please select operation -\n" \
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL Python Debug Console

```
-python.python-2022.6.1\pythonFiles\lib\python\debugpy\launcher' '50249' '--' 'c:\Users\admin\python assignments\.practice.py'
Please select operation -
1. Add
2. Subtract
3. Multiply
4. Divide

Select operations form 1, 2, 3, 4 :1
Enter first number: 34
Enter second number: 45
34 + 45 = 79
PS C:\Users\admin\python assignments>
```

.practice.py > ...

```python
# Question 3
import math
#A)
a = (3+4)*(5)
print("(3+4)*(5)", "=", a)

#B)
a=int(input("Enter the value of 'n' to calculate the value of '(n(n-1))/2': "))
print("For 'n':" , a , ", the value of '(n(n-1))/2' is: " , end="")
print((a*(a-1))/2)

#C)
r=int(input("Enter the value of 'r' to calculate 4pi(r^2): "))
b=4*(math.pi)*(r**2)
print("For 'r':" , r, ", the value of 4pi(r^2) is: " ,end="")
print(f"{b:.4f}")

#D)
A_1=int(input("Value of a in degrees: "))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Python Debug Console

```
For 'r': 2 , the value of 4pi(r^2) is: 50.2655
Value of a in degrees: 30
Value of b in degrees: 45
Value of 'r': 7
The value of expression '(r*(cos(a)^2) + r*(sin(b)^2))^1/2':  3.952765570202987
To find the slope between two points.
Enter the point x-axis of point 1: 1
Enter the point y-axis of point 1: 8
Enter the point x-axis of point 2: 9
Enter the point y-axis of point 2: 6
The slope between 2 points is: -0.2500
PS C:\Users\admin\python assignments>
```

.practice.py > ...

```python
# Question 4
for a in range(5):
    print(a)

for b in range(3,10):
    print(b)

for c in range(4,13,3):
    print(c)

for d in range(15,5,-2):
    print(d)

for e in range(5,3,-1):
    print(e)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL Python Debug Console

```
9
4
7
10
15
13
11
9
7
5
4
PS C:\Users\admin\python assignments>
```

```python
# Question 5
H_w = 1.00794
C_w = 12.0107
O_w = 15.9994

H = int(input("Enter number of hydrogen atoms "))
C = int(input("Enter number of carbon atoms "))
O = int(input("Enter number of oxygen atoms "))

weight = H*H_w + C*C_w + O*O_w

print("The molecular weight of the compound is", weight)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Python Debug Console

```
Windows PowerShell
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PS C:\Users\admin\python assignments>  & 'C:\Users\admin\AppData\Local\Microsoft\WindowsApps\python3.10.exe' 'c:\Users\admin\.vscode\extensions\ms
-python.python-2022.6.1\pythonFiles\lib\python\debugpy\launcher' '50351' '--' 'c:\Users\admin\python assignments\.practice.py'
Enter number of hydrogen atoms 45
Enter number of carbon atoms 67
Enter number of oxygen atoms 78
The molecular weight of the compound is 2098.0274
PS C:\Users\admin\python assignments>
```