

11. Write a program to find the reverse of a given number using recursive.

Program:

```
def reverse_number(n, reversed_num=0):  
    if n == 0:  
        return reversed_num  
    else:  
        reversed_num = reversed_num * 10 + remainder  
        return reverse_number(n // 10, reversed_num)
```

Example usage

number = 12345

reversed_number = reverse_number(number)

print(f"Reverse of {number} is {reversed_number}")

Output:

```
"C:\Program Files\Python312\python.exe" "C:\Work Space\DAA COADS.PYTHON\program11.py"  
Reverse of 12345 is 54321  
  
Process finished with exit code 0
```

Time complexity:

$O(\log n)$