

Unit 1

Challenge 1Q

Implement a recursive function to calculate the factorial of a given number.

```
def factorial(n):  
    if n == 0:  
        return 1  
    else:  
        return n * factorial(n - 1)  
  
# Input from the user  
num = int(input("Enter a number: "))  
  
# Call the factorial function and print the result  
result = factorial(num)  
print(f"The factorial of {num} is {result}")
```

Output:

Enter a number:5

The factorial of 5 is 120