```python
def factorial(n):  1 usage  new *


    if n < 0:
        return None
    elif n == 0:
        return 1
    else:
        result = 1
        for i in range(1, n + 1):
            result *= i
        return result

num = 5
fact = factorial(num)

```

```
C:\Users\bansh\PycharmProjects\PythonProject2\.venv\Scripts\python.exe C:\Users\ba
The factorial of 5 is 120

Process finished with exit code 0
```

```
    num_str = input("Please enter a number: ")
    number = float(num_str)

    sqrt_val = math.sqrt(number)
    log_val = math.log(number)
    sin_val = math.sin(number)

    print(f"The square root of {number} is: {sqrt_val}")
    print(f"The natural logarithm of {number} is: {log_val}")
    print(f"The sine of {number} (in radians) is: {sin_val}")

except ValueError:
    print("Invalid input. Please enter a valid number.")
except Exception as e:
    print(f"An error occurred: {e}")
```

```
Please enter a number: 5
The square root of 5.0 is: 2.23606797749979
The natural logarithm of 5.0 is: 1.6094379124341003
The sine of 5.0 (in radians) is: -0.9589242746631385

Process finished with exit code 0
```