

```
def is_power_of_three(n):
```

```
    if n <= 0:
        return False
    while n % 3 == 0:
        n = n // 3
    return n == 1
```

```
is_power_of_three(81)
```

```
True
```

```
is_power_of_three(8)
```

```
False
```

```
def collatz_conjecture(n):
```

```
    while n != 1:
        print(n, end=" ")
        if n % 2 == 0:
            n = n // 2
        else:
            n = 3 * n + 1
    print(n, end=" ")
```

```
collatz_conjecture(27)
```

```
27 82 41 124 62 31 94 47 142 71 214 107 322 161 484 242 121 364 182 91 274 137 412 206 103 310 155 466 233 700 350 175 526 263 790 395 1
```

```
collatz_conjecture(7)
```

```
7 22 11 34 17 52 26 13 40 20 10 5 16 8 4 2 1
```

```
def celsius_to_fahrenheit(celsius):
```

```
    fahrenheit = (celsius * 9/5) + 32
    return fahrenheit
```

```
celsius_to_fahrenheit(31)
```

```
87.8
```

```
celsius_to_fahrenheit(91)
```

```
195.8
```

```
def multiply_matrices(mat1, mat2):
```

```
    if len(mat1[0]) != len(mat2):
        print("Matrices cannot multiplied!")
        return None
```

```
    result = [[0 for j in range(len(mat2[0]))] for i in range(len(mat1))]
```

```
    for i in range(len(mat1)):
        for j in range(len(mat2[0])):
            for k in range(len(mat2)):
                result[i][j] += mat1[i][k] * mat2[k][j]
```

```
    return result
```

```
mat1=[[1,2,3],[1,2,3],[1,2,3]]
```

```
mat2 =[[1,2,3],[1,2,3],[1,2,3]]
```

```
multiply_matrices(mat1, mat2)
```

```
[[6, 12, 18], [6, 12, 18], [6, 12, 18]]
```

---

✓ 0s completed at 2:56 PM

● ×