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CS3C

```
import math
```

```
# Example: factorial
```

```
n = 5
```

```
result = math.factorial(n)
```

```
print(f"The factorial of {n} is: {result}")
```

```
# Example: power and logarithmic function
```

```
x = 2
```

```
y = 3
```

```
# Power function: x raised to the power y
```

```
power_result = math.pow(x, y)
```

```
# Logarithmic function: base 10 logarithm of x
```

```
log_result = math.log10(x)
```

```
print(f"{x} raised to the power {y} is: {power_result}")
```

```
print(f"Logarithm of {x} with base 10 is: {log_result}")
```

```
# Example: sine function
```

```
angle_degrees = 45
```

```
# Convert degrees to radians
```

```
angle_radians = math.radians(angle_degrees)
```

```
# Sine function
```

```
sin_result = math.sin(angle_radians)
```

```
print(f"The sine of {angle_degrees} degrees is: {sin_result}")
```

```
# Example: radians to degrees conversion
```

```
angle_radians = math.pi / 4
```

```
# Convert radians to degrees
```

```
angle_degrees = math.degrees(angle_radians)
```

```
print(f"{angle_radians} radians is equal to {angle_degrees} degrees.")
```

```
# Example: hyperbolic sine function
```

```
x = 2
```

```
# Hyperbolic sine function
```

```
sinh_result = math.sinh(x)
```

```
print(f"The hyperbolic sine of {x} is: {sinh_result}")
```