Ramila Jane B. Abobo **EXERCISE: 5**

CS3C

RESULT IMAGES

1. NUMBER FUNCTIONS

```
'''
#NUMBER FUNCTIONS
#abs() function
positive_num = 10
value_num = abs(positive_num)
print(" Value Number: ", value_num)

#int() function
num_str = "100"
num_int = int(num_str)
print(" Integer:", num_int)

#min() function
numbers = [3, 9, 10, 15]
min_value = min(numbers)
print(" Minimum value:", min_value)
print(" ")

```

```
Value Number:  10
Integer: 100
Minimum value: 3
```

2. POWER AND LOGARITHMIC FUNCTIONS

```
#POWER AND LOGARITHMIC FUNCTIONS
#exponentiation operator
base = 3
exponent = 3
print( "", base ** exponent)

#logarithm base 10
import math

x = 100
result = math.log10(x)
print("", result)

#natural algorithm
x = 10
result = math.log(x)
print("", result)
print("")

```

```
27
2.0
2.302585092994046
```

3. . TRIGONOMETRIC FUNCTIONS

```

#TRIGONOMETRIC FUNCTIONS
import math

angle = math.radians(40)  # Convert degrees to radians
print(" Sine:", math.sin(angle))
print(" Cosine:", math.cos(angle))
print(" Tangen:", math.tan(angle))
print("")

```

```
Sine: 0.6427876096865393
Cosine: 0.766044443118978
Tangen: 0.8390996311772799
```

4. ANGULAR CONVERSION FUNCTIONS

```python
#ANGULAR CONVERSION FUNCTIONS
import math

# Convert degrees to radians
angle_degrees = 45
angle_radians = math.radians(angle_degrees)
print(" degrees in radians:", angle_radians)

# Convert radians to degrees
angle_radians = math.pi / 4
angle_degrees = math.degrees(angle_radians)
print(" radians in degrees:", angle_degrees)
print("")
```

```
degrees in radians: 0.7853981633974483
radians in degrees: 45.0
```

5. HYPERBOLIC FUNCTIONS

```python
#HYPERBOLIC FUNCTIONS
import math

# Hyperbolic functions
x = 2
print(" sine of 2:", math.sinh(x))
print(" cosine of 2:", math.cosh(x))
print(" tangent of 2:", math.tanh(x))
print(" acosh of 2:", math.tanh(x))
print(" asinh of 2:", math.tanh(x))
```

```
sine of 2: 3.626860407847019
cosine of 2: 3.7621956910836314
tangent of 2: 0.9640275800758169
acosh of 2: 0.9640275800758169
asinh of 2: 0.9640275800758169
```