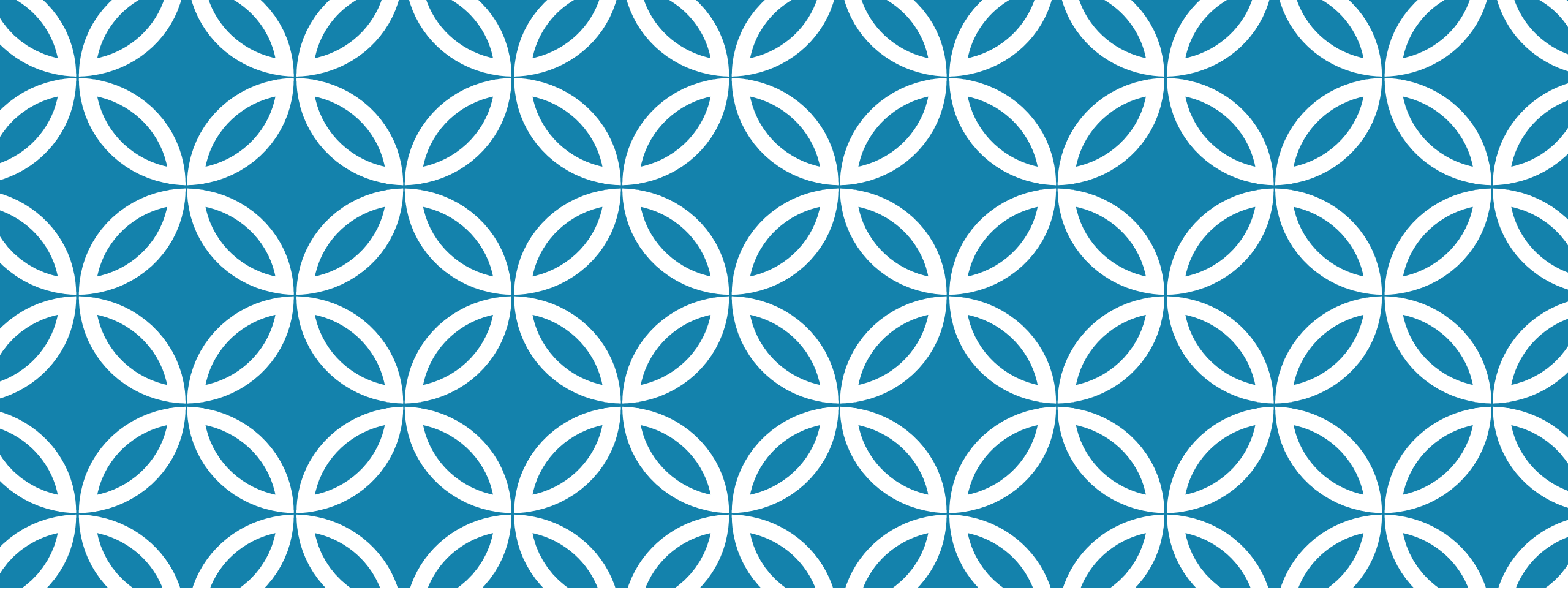
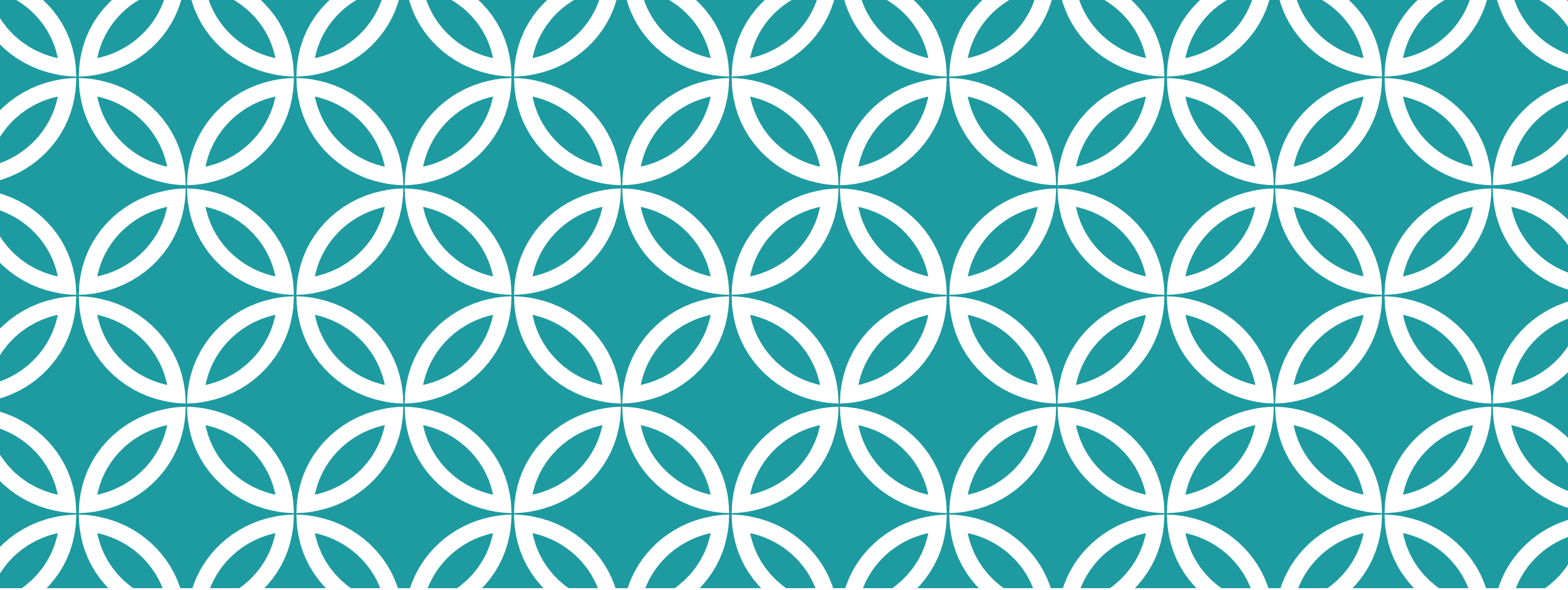


PYTHON



MATH

Python math module is defined as the most famous mathematical functions, which includes trigonometric functions, representation functions, logarithmic functions, etc. Furthermore, it also defines two mathematical constants, i.e., Pie and Euler number, etc.

PIE()

It is a well-known mathematical constant and defined as the ratio of circumstance to the diameter of a circle. Its value is 3.141592653589793.

EULER'S NUMBER

It is defined as the base of the natural logarithmic, and its value is 2.718281828459045.

MATH.LOG()

This method returns the natural logarithm of a given number. It is calculated to the base e.

```
import math

number = 2e-7  # small value of of x

print('log(fabs(x), base) is :', math.log(math.fabs(number), 10))
```

MATH.LOG10()

This method returns base 10 logarithm of the given number and called the standard logarithm.

```
import math

x=13  # small value of of x

print('log10(x) is :', math.log10(x))
```

MATH.EXP()

This method returns a floating-point number after raising e to the given number.

```
import math
number = 5e-2  # small value of of x
print('The given number (x) is :', number)
print('e^x (using exp() function) is :', math.exp(number)-1)
```

MATH.POW(X,Y)

This method returns the power of the x corresponding to the value of y. If value of x is negative or y is not integer value than it raises a ValueError.

```
import math

number = math.pow(10,2)

print("The power of number:",number)
```

MATH.FLOOR(X)

This method returns the floor value of the x. It returns the less than or equal value to x.

```
import math
number = math.floor(10.25201)
print("The floor value is:",number)
```

MATH.CEIL(X)

This method returns the ceil value of the x. It returns the greater than or equal value to x.

```
import math

number = math.ceil(10.25201)

print("The floor value is:",number)
```

MATH.FABS(X)

This method returns the absolute value of x.

```
import math
number = math.fabs(10.001)
print("The floor absolute is:",number)
```

MATH.FACTORIAL()

This method returns the factorial of the given number x. If x is not integral, it raises a **ValueError**.

```
import math

number = math.factorial(7)

print("The factorial of number:",number)
```

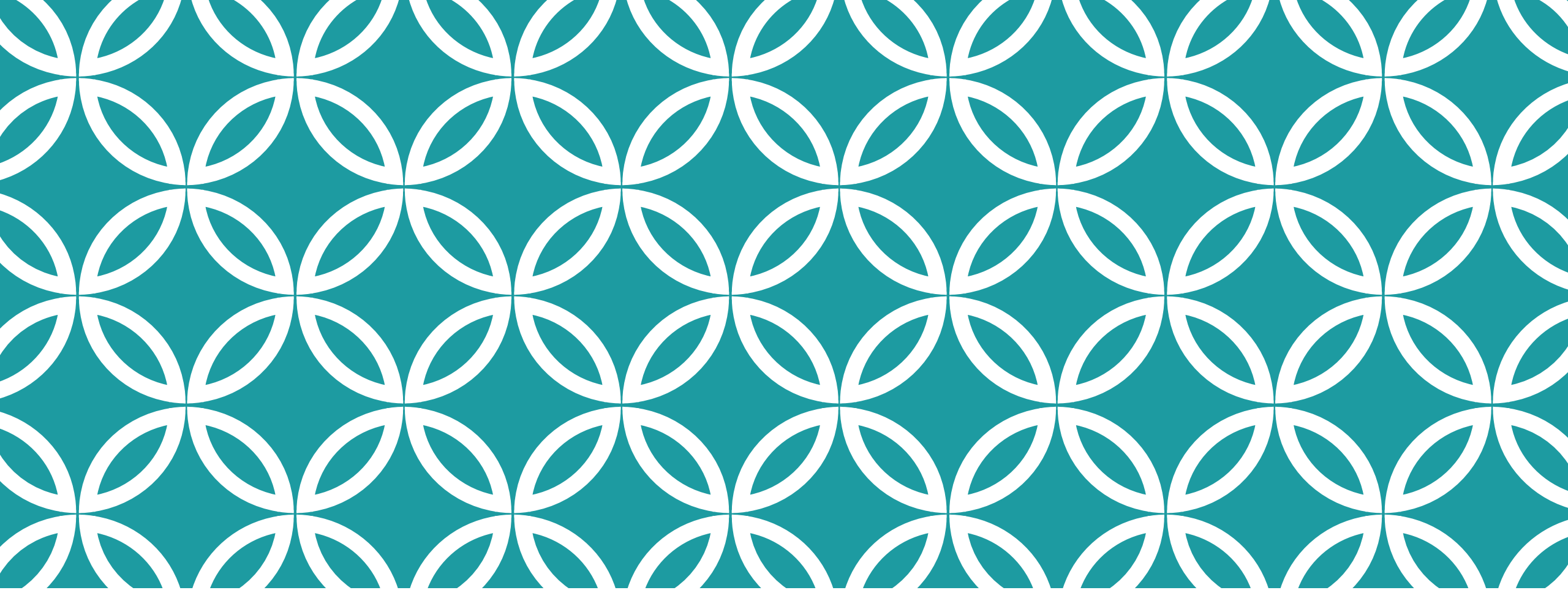
MATH.MODF(X)

This method returns the fractional and integer parts of x. It carries the sign of x is float.

```
import math

number = math.modf(44.5)

print("The modf of number:",number)
```



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