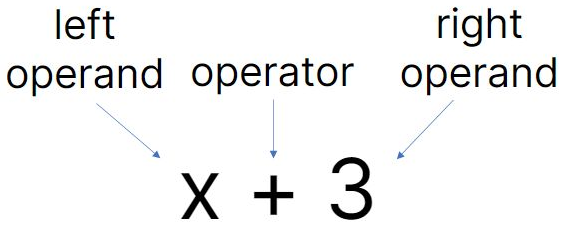
Math Operators

Math operators

Symbol	Operation	Usage
+	Addition	Adds two numbers
-	Subtraction	Subtracts one number from another
*	Multiplication	Multiplies one number by another
/	Division	Divides one number by another, gives result as floating-point number
//	Floor Division	Divides one number by another, gives result as whole number
%	Remainder	Divides one number by another and gives the remainder
**	Exponent	Raises a number to a power

All programming languages have what are called math operators, used to perform numeric calculations

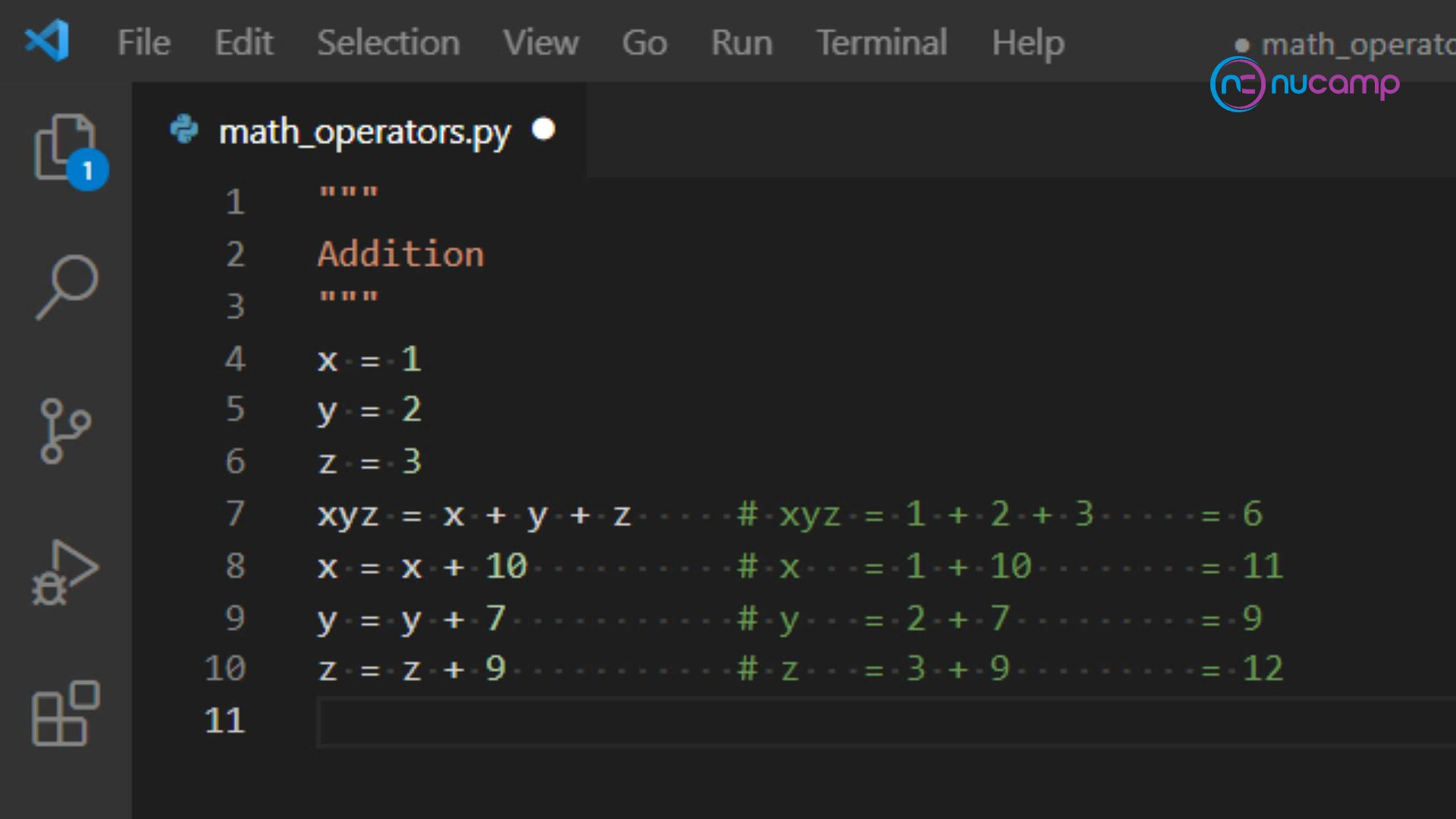
Math operators



Programmers use math operators to create **math expressions**

A math expression performs a calculation and returns a value

The values the operator is applied to are called operands


File Edit Selection View Go Run Terminal Help
math_operato
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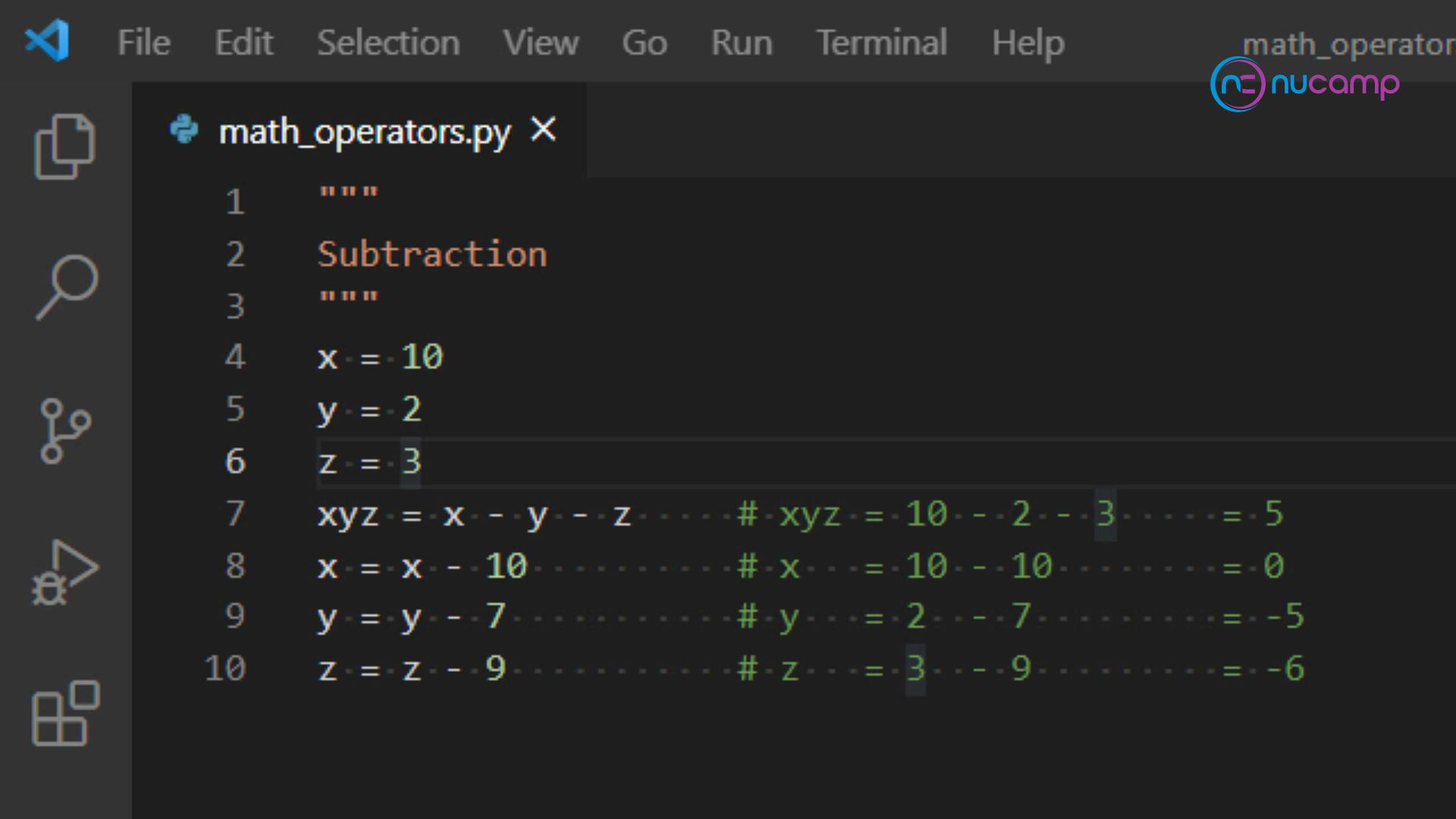
math_operators.py
"""
Addition
"""
x = 1
y = 2
z = 3
xyz = x + y + z # xyz = 1 + 2 + 3 = 6
x = x + 10 # x = 1 + 10 = 11
y = y + 7 # y = 2 + 7 = 9
z = z + 9 # z = 3 + 9 = 12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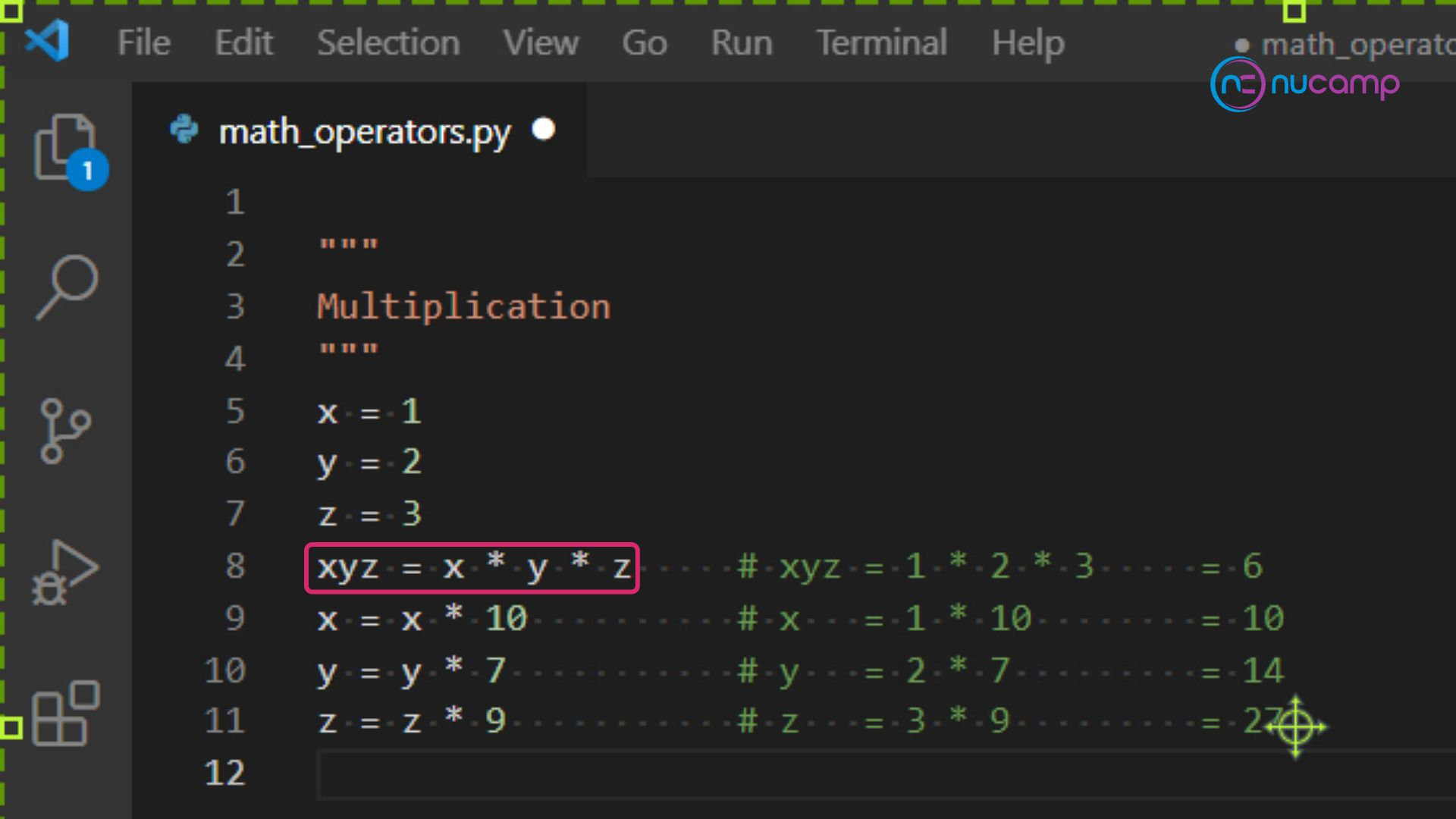
"""
Subtraction
"""
x = 10
y = 2
z = 3
xyz = x - y - z # xyz = 10 - 2 - 3 = 5
x = x - 10 # x = 10 - 10 = 0
y = y - 7 # y = 2 - 7 = -5
z = z - 9 # z = 3 - 9 = -6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math_operato
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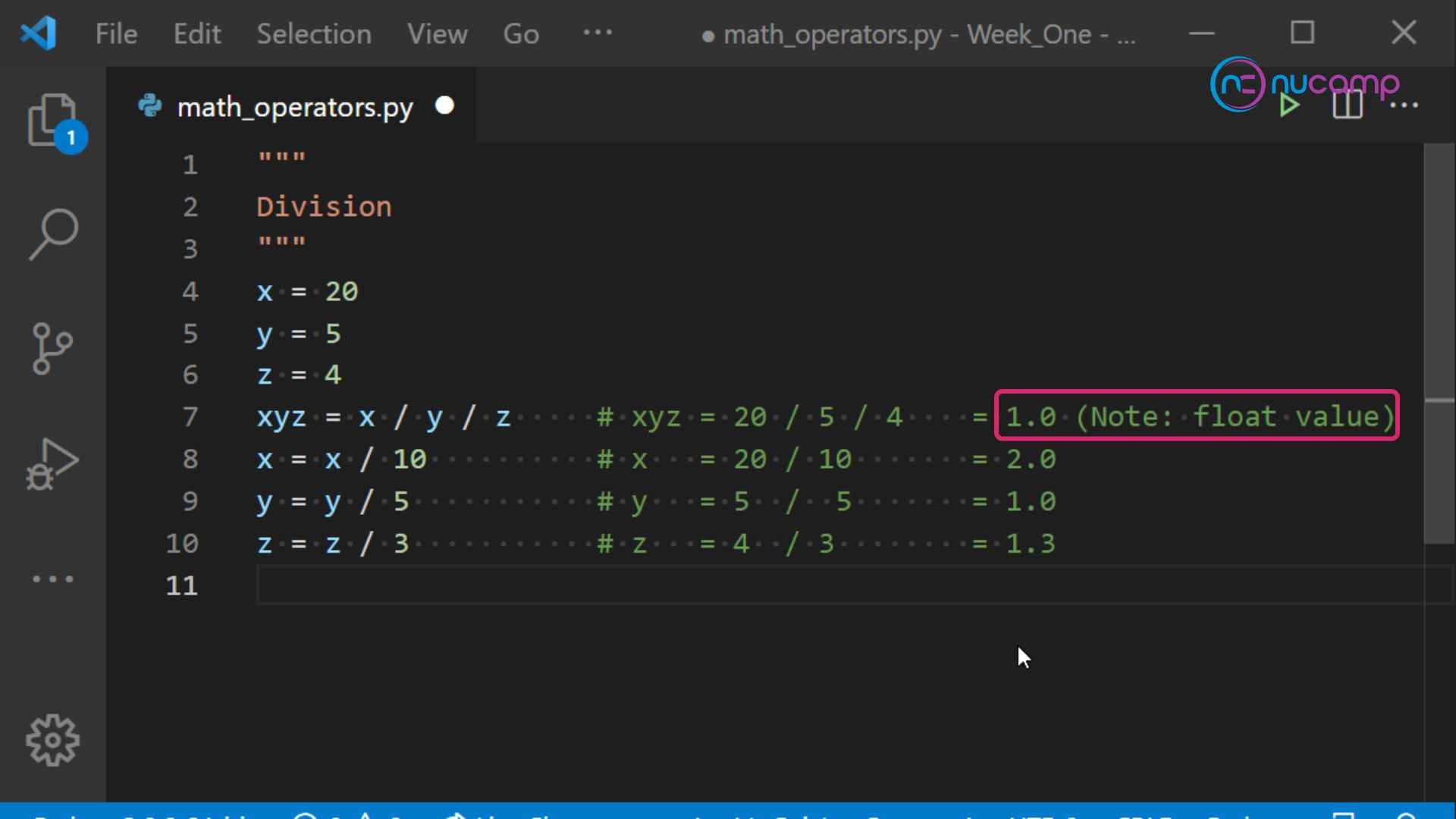
"""
Multiplication
"""
x = 1
y = 2
z = 3
xyz = x * y * z # xyz = 1 * 2 * 3 = 6
x = x * 10 # x = 1 * 10 = 10
y = y * 7 # y = 2 * 7 = 14
z = z * 9 # z = 3 * 9 = 27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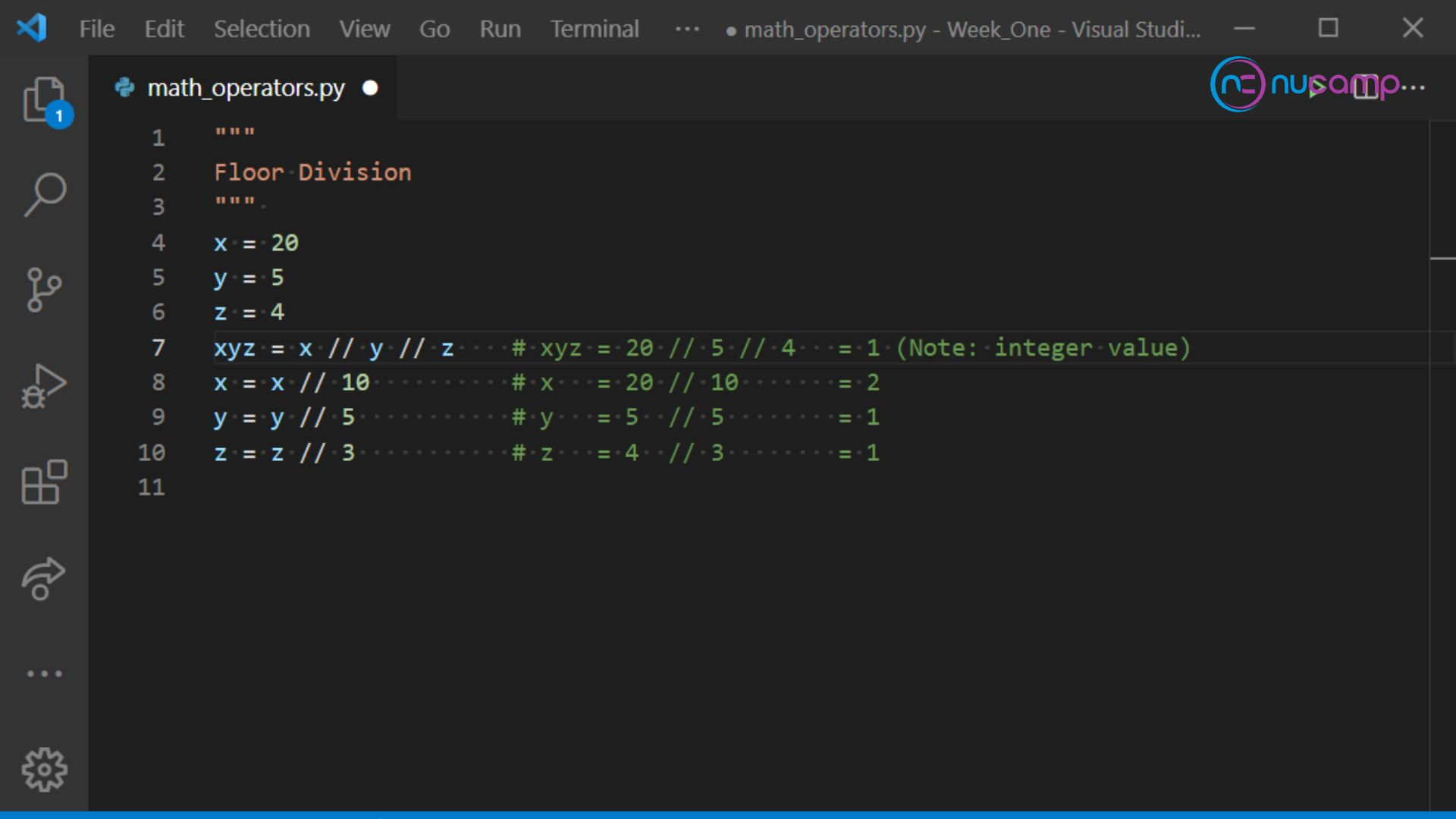
math_operators.py - Week_One - ...
math_operators.py
"""
Division
"""
x = 20
y = 5
z = 4
xyz = x / y / z # xyz = 20 / 5 / 4 = 1.0 (Note: float value)
x = x / 10 # x = 20 / 10 = 2.0
y = y / 5 # y = 5 / 5 = 1.0
z = z / 3 # z = 4 / 3 = 1.3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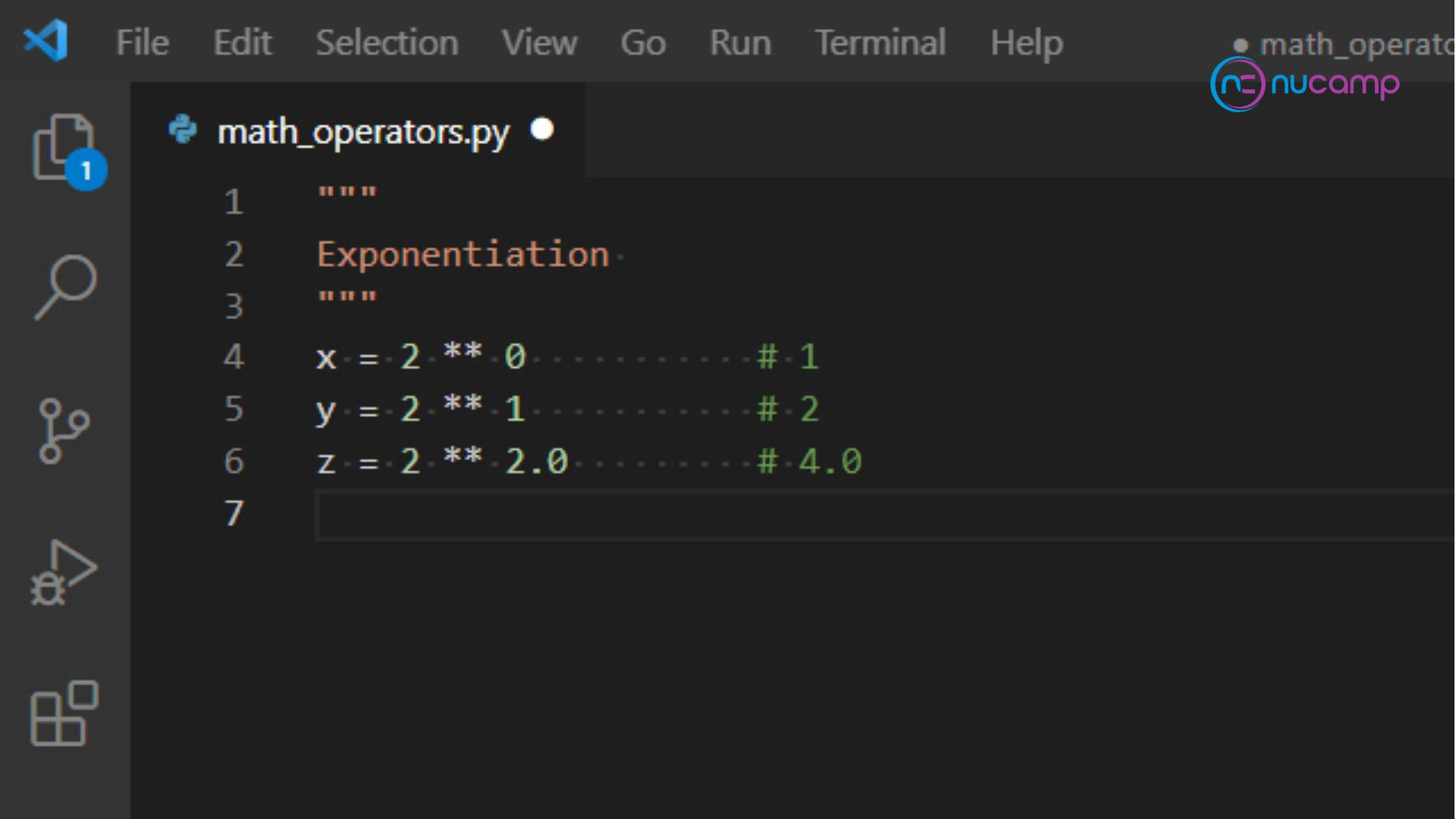
math_operators.py
"""
Floor Division
"""
x = 20
y = 5
z = 4
xyz = x // y // z   # xyz = 20 // 5 // 4   = 1 (Note: integer value)
x = x // 10   # x   = 20 // 10   = 2
y = y // 5   # y   = 5 // 5   = 1
z = z // 3   # z   = 4 // 3   = 1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math_operato
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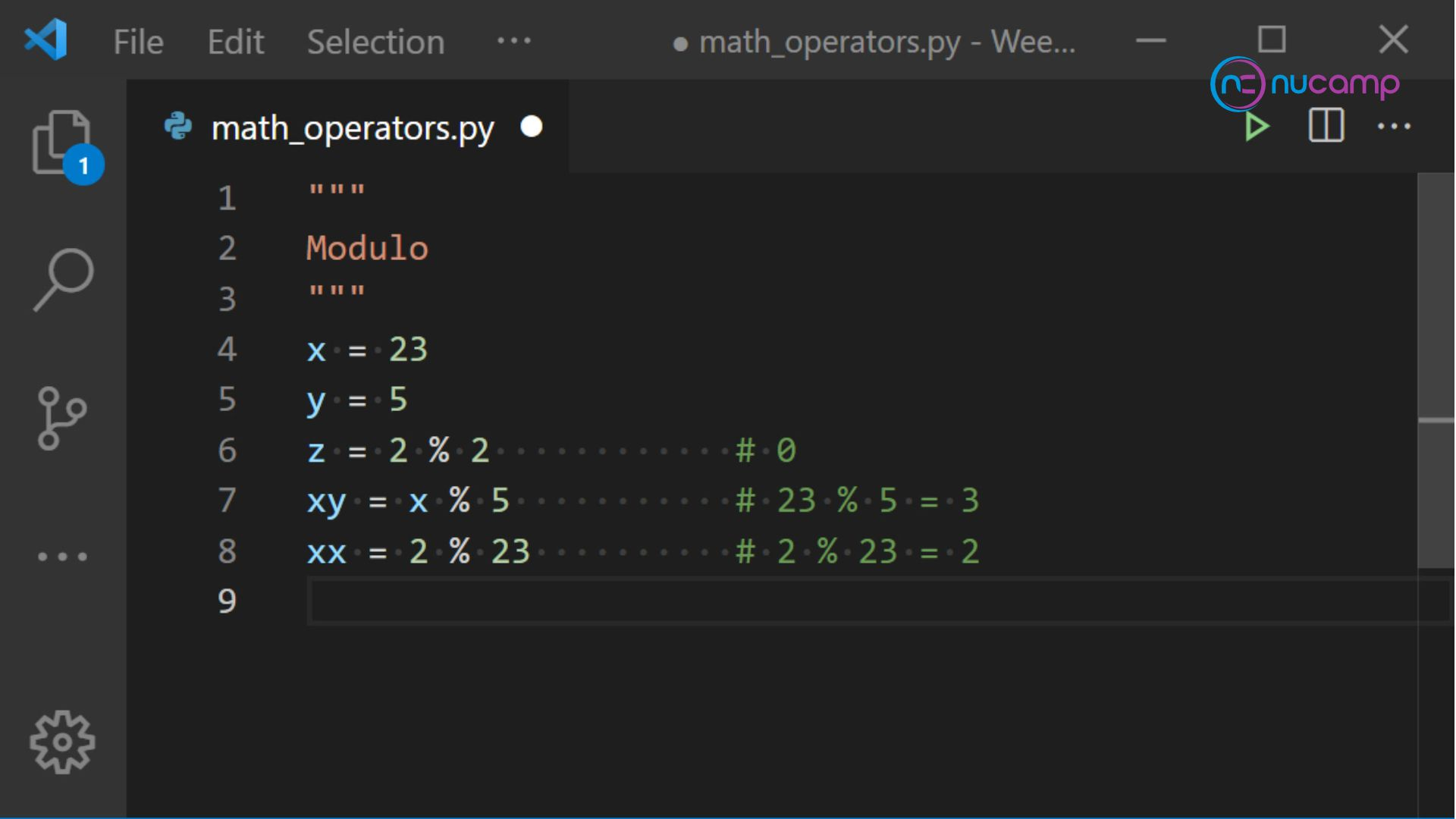
"""
Exponentiation
"""
x = 2 ** 0 # 1
y = 2 ** 1 # 2
z = 2 ** 2.0 # 4.0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math_operators.py
1
"""
Modulo
"""
x = 23
y = 5
z = 2 % 2 # 0
xy = x % 5 # 23 % 5 = 3
xx = 2 % 23 # 2 % 23 = 2