

```

```python
result = 10 // 3
print(result) # Output: 3
```

```

```

### 9.2. Modulo (%)
Syntax: `dividend % divisor`
```python
result = 10 % 3
print(result) # Output: 1
```

```

```

## 10. Generating a List with `list(range())`
Syntax: `list(range(start, stop, step))`
```python
Generate a list of numbers from 0 to 4
my_list = list(range(5))
print(my_list) # Output: [0, 1, 2, 3, 4]
```

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## 12. Logical Operators
- Logical Function: XOR
  - Python Operator: `^`
  - Description: Returns True if exactly one operand is True (bitwise XOR)
- Logical Function: NAND
  - Python Operator: `not (a and b)`
  - Description: Returns False only if both operands are True
- Logical Function: NOR
  - Python Operator: `not (a or b)`
  - Description: Returns True only if both operands are False
- Logical Function: XNOR
  - Python Operator: `not (a ^ b)`
  - Description: Returns True if both operands have the same boolean value
- Logical Function: Implication
  - Python Operator: `not a or b`
  - Description: Returns False only if the first operand is True and the second is False

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```python
a = True
b = False

print(a and b) # False
print(a or b) # True
print(not a) # False
print(a ^ b) # True
print(not (a and b)) # True (NAND)
print(not (a or b)) # False (NOR)
print(not (a ^ b)) # False (XNOR)
print(not a or b) # False (Implication)
```

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### True Table
```python
values = [True, False]
print("Truth Table for XOR:")
print("{}\t{}\t{}".format("a", "b", "a xor b"))
for a in values:
 for b in values:
 print("{}\t{}\t{}".format(a, b, xor(a, b)))
```

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## 13. `parse_line`
```python
>>> print(parse_line("Meka's Lounge |
Bars|5|2|4|4|3|4|5"))
[7, 3.857142857142857, "Meka's Lounge", "Bars"]
```

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```python
def parse_line(string):
 parsed = string.split(',')
 average = 0
 total = len(parsed)-2
 for i in range(2,len(parsed)):
 average += int(parsed[i].strip())
 average /= total
 return [total, average, parsed[0].strip(),
 parsed[1].strip()]
```

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### 13.1 filter restaurant
```python
infile = input("Input Filename? ")
outfile = input("Output Filename? ")
lines = []
file = open(infile, "w")
for line in open(infile):
 parsed = parse_line(line)
 if parsed[0] > 3 and parsed[1] > 2.5:
 file.write(parsed[2]+'\\n')
file.close()
```

```

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## Chess Board
```python
def move_piece(board, piece, start, end):
 if board[start[0]][start[1]] == piece:
 board[start[0]][start[1]] = ''
 taken = board[end[0]][end[1]]
 board[end[0]][end[1]] = piece
 return taken
```

```