



# LOGICAL OPERATORS

## CONDITIONAL STATEMENT

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L10-logical-operators.ipynb ×

notebook > L10-logical-operators.ipynb > Logical Operators > Logical AND > a = True

+ Code + Markdown ▶ Run All ⏻ Restart ⌵ Clear All Outputs 🔍 View data 📄 Jupyter Variables 📖 Outline ...

Python 3.13.0

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## Logical Operators

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### Logical AND

```
1 a = True
2 b = True
3
4 if a and b:
5     print("both are true")
6 else:
7     print("at least one is false")
```

Python

```
1 a = 12
2
3 if (a > 0) and (a <= 10):
4     print(str(a) + " is within the range of 1 to 10.")
5 elif (a > 10) and (a <= 20):
6     print(str(a) + " is within the range of 11 to 20.")
7 elif (a > 20) and (a <= 30):
8     print(str(a) + " is within the range of 21 to 30.")
9 else:
10    print("out of range.")
```

Python

### Logical OR

```
1 a = True
2 b = False
3
4 if a or b:
5     print("at least one is true")
6 else:
7     print("both are false")
```

Python

```
1 weather = "sunny"
2
3 if (weather == "rainy") or (weather == "stormy"):
4     print("Bring an umbrella or stay indoors!")
5 elif (weather == "sunny") or (weather == "clear"):
6     print("It's a great day to go outside!")
7 else:
8     print("The weather is unpredictable today.")
```

Python

### Logical NOT

```
1 a = True
2
3 not a
```

Python

```
1 a = 8
2
3 if not(a % 2 == 0):
4     print(str(a) + " is even")
5 else:
6     print(str(a) + " is odd")
```

Python