

# Programming in Python: Takeaways

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## Syntax

- Displaying the output of a computer program:

```
print(1 + 2)
print(5 * 10)
```

- Ignoring certain lines of code by using code comments:

```
# print(1 + 2)
print(5 * 10)
# This program will only print 50
```

- Performing arithmetical operations:

```
1 + 2
4 - 5
30 * 1
20 / 3
4 ** 3
(4 * 18) ** 2 / 10
```

## Concepts

- When we give a computer a set of instructions, we say that we're **programming** it. To program a computer, we need to write the instructions in a special language, which we call a **programming language**.
- Python has **syntax** rules, and each line of instruction has to comply with these rules. For example, `print(23 + 7) print(10 - 6) print(12 + 38)` doesn't comply with Python's syntax rules, and it causes a **syntax error**.
- We call the instructions we send to the computer **code**. We call each line of instruction a **line of code**.
- When we write code, we *program* the computer to do something. For this reason, we also call the code we write a **computer program** (or a **program**).
- The code we write serves as **input** to the computer. We call the result of executing the code **output**.
- We call the sequence of characters that follows the `#` symbol a **code comment**. We can use code comments to prevent the computer from executing a line of code or to add information about the code we write.