

Hello Python!

INTRODUCTION TO PYTHON



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How you will learn

Learn / Courses / Introduction to Python

Exercise

Python as a calculator

Python is perfectly suited to do basic calculations. It can do addition, subtraction, multiplication and division.

The code in the script gives some examples.

Now it's your turn to practice!

Instructions

300 XP

- Print the sum of 5 + 5 .
- Print the result of subtracting 5 from 5 .
- Multiply 3 by 5 .
- Divide 10 by 2 .

Take Hint (-30 XP)

script.py

Light Mode

```
1 # Addition
2 print(5 + 5)
3
4 # Subtraction
5 print(5 - 5)
6
7 # Multiplication
8 print(3 * 5)
9
10 # Division
11
```

↺

Run Code

Submit Answer

IPython Shell

In [1]:

Python



- General purpose: build anything
- Open source! Free!
- Python packages, also for data science
 - Many applications and fields

IPython Shell

Execute Python commands

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← Course Outline →

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100 XP

- Print the sum of `5 + 5`.
- Print the result of subtracting `5` from `5`.
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- Divide `10` by `2`.

💡 Take Hint (-30 XP)

script.py

Light Mode

```
1 # Addition
2
3
4 # Subtraction
5
6
7 # Multiplication
8
9
10 # Division
11
```

↺

Run Code

Submit Answer

IPython Shell

In [1]:

IPython Shell

Execute Python commands

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Light Mode

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script.py

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↶

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IPython Shell

In [1]:

IPython Shell

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Exercise

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Take Hint (-30 XP)

script.py

Light Mode

1

Run Code

Submit Answer

IPython Shell

In [1]:

Python Script

- Text files - `.py`
- List of Python commands
- Similar to typing in IPython Shell

The screenshot shows a web-based learning interface for a Python course. On the left, there's a sidebar with the course title 'Learn / Courses / Introduction to Python' and a 'Course Outline' button. The main content area is titled 'Exercise' and 'Python as a calculator'. It explains that Python is suited for basic calculations and provides instructions for a practice task. The instructions list four tasks: printing the sum of 5 + 5, the result of subtracting 5 from 5, multiplying 3 by 5, and dividing 10 by 2. A 'Take Hint (-30 XP)' button is also present. On the right, a code editor window titled 'script.py' is open, showing a Python script with comments for Addition, Subtraction, Multiplication, and Division. The script is highlighted with a green border. Below the code editor is an 'IPython Shell' window with a prompt 'In [1]:'.

```
script.py
1 # Addition
2
3
4 # Subtraction
5
6
7 # Multiplication
8
9
10 # Division
11
```

Buttons: Run Code, Submit Answer

Python Script

Learn / Courses / Introduction to Python

← Course Outline →

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Exercise

Python as a calculator

Python is perfectly suited to do basic calculations. It can do addition, subtraction, multiplication and division.

The code in the script gives some examples.

Now it's your turn to practice!

Instructions 100 XP

- Print the sum of 4 + 5 .
- Print the result of subtracting 5 from 5 .
- Multiply 3 by 5 .
- Divide 10 by 2 .

Take Hint (-30 XP)

script.py Light Mode

1 4

⌂ Run Code Submit Answer

IPython Shell

In [1]:

Python Script

The screenshot shows a web interface for a Python exercise. The top navigation bar includes a logo, the path 'Learn / Courses / Introduction to Python', and a 'Course Outline' button. The left sidebar has a tab for 'Exercise' and a section titled 'Python as a calculator' with instructions: 'Python is perfectly suited to do basic calculations. It can do addition, subtraction, multiplication and division. The code in the script gives some examples. Now it's your turn to practice!'. Below this is an 'Instructions' section with a '100 XP' badge and a list of tasks: 'Print the sum of 4 + 5', 'Print the result of subtracting 5 from 5', 'Multiply 3 by 5', and 'Divide 10 by 2'. A 'Take Hint (-30 XP)' button is also present. The main area contains a code editor for 'script.py' with a 'Light Mode' toggle and a 'Run Code' button. Below the editor is an 'IPython Shell' with a 'In [1]:' prompt. The 'Submit Answer' button is highlighted in green.

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Exercise

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Instructions 100 XP

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- Print the result of subtracting `5` from `5`.
- Multiply `3` by `5`.
- Divide `10` by `2`.

Take Hint (-30 XP)

script.py Light Mode

```
1
```

Run Code Submit Answer

IPython Shell

```
In [1]:
```

- Use `print()` to generate output from script

DataCamp Interface

Learn / Courses / Introduction to Python

←

≡ Course Outline

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Light Mode

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1 # Addition
2
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8
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```

↺

Run Code

Submit Answer

IPython Shell

▼

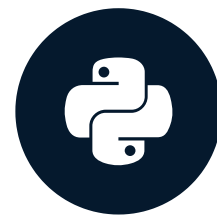
In [1]:

Let's practice!

INTRODUCTION TO PYTHON

Variables and Types

INTRODUCTION TO PYTHON



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Variable

- Specific, case-sensitive name
- Call up value through variable name
- 1.79 m - 68.7 kg

```
height = 1.79  
weight = 68.7  
height
```

```
1.79
```

Calculate BMI

```
height = 1.79
weight = 68.7
height
```

```
1.79
```

$$\text{BMI} = \frac{\text{weight}}{\text{height}^2}$$

```
68.7 / 1.79 ** 2
```

```
21.4413
```

```
weight / height ** 2
```

```
21.4413
```

```
bmi = weight / height ** 2
bmi
```

```
21.4413
```

Reproducibility

```
height = 1.79  
weight = 68.7  
bmi = weight / height ** 2  
print(bmi)
```

```
21.4413
```

Reproducibility

```
height = 1.79
weight = 74.2 # <-
bmi = weight / height ** 2
print(bmi)
```

```
23.1578
```


Python Types

```
type(bmi)
```

```
float
```

```
day_of_week = 5  
type(day_of_week)
```

```
int
```

Python Types (2)

```
x = "body mass index"  
y = 'this works too'  
type(y)
```

str

```
z = True  
type(z)
```

bool

Python Types (3)

```
2 + 3
```

```
5
```

```
'ab' + 'cd'
```

```
'abcd'
```

- Different type = different behavior!

Let's practice!

INTRODUCTION TO PYTHON