

# 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

- 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)

500 XP

Course Outline

script.py

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

Light Mode

Run Code

Submit Answer

Python Shell

In [1]:

INTRODUCTION TO PYTHON

<https://campus.datacamp.com/courses/intro-to-python-for-data-science/chapter-1-python-basics?ex=2>

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# 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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Exercise

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Instructions

100 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

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

Light Mode

Run Code

Submit Answer

IPython Shell

In [1]:

# IPython Shell

## Execute Python commands

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Exercise

### Python as a calculator

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Instructions

- 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

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

Light Mode

Run Code

Submit Answer

IPython Shell

In [1]:

# IPython Shell

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

100 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 (~50 XP)

script.py

1

Light Mode

Run Code

Submit Answer

IPython Shell

In [1]:



# Python Script

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



# Python Script

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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 (-50 XP)

script.py

1

Light Mode

Run Code

Submit Answer

IPython Shell

In [1]:



# Python Script

The screenshot shows a web interface for a Python exercise. At the top, there's a navigation bar with 'Learn / Courses / Introduction to Python'. Below it, a sidebar contains 'Exercise' and 'Instructions' tabs. The main content area is titled 'Python as a calculator' and explains that Python is suited for basic calculations like addition, subtraction, multiplication, and division. It provides a code example: `print(4 + 5)`. Below the code, there are four instructions: '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 (-50 XP)' button is also present. On the right side, there's a 'script.py' editor with a 'Light Mode' toggle, 'Run Code', and 'Submit Answer' buttons. At the bottom, there's an 'IPython Shell' with a prompt 'In [1]:'.

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

# DataCamp Interface

Learn / Courses / Introduction to Python

←

≡ Course Outline

→

Light Mode

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

Take Hint (-30 XP)

script.py

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

Run Code

Submit Answer

IPython Shell

In [1]:

INTRODUCTION TO PYTHON

<https://campus.datacamp.com/courses/intro-to-python-for-data-science/chapter-1-python-basics?ex=2>

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# 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

