

Python

...für Anfänger

Unit 5

by

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Funktion definieren - 1

```
name = "Maxi"  
>>> def print_name():  
...     print(name)  
...  
>>> print_name()  
Maxi
```

Funktion definieren - 2

```
name = "Maxi"  
>>> def print_name(name):  
...     print(name)  
...  
>>> print_name("Mini")  
Mini
```

```
>>> print_name()
```

```
Traceback (most recent call last):
```

```
  File "<stdin>", line 1, in <module>
```

```
TypeError: print_name() missing 1 required position
```

Funktion definieren - 3

```
>>> def print_name(firstname, lastname):  
...     print(firstname, lastname)  
...  
>>> res = print_name("Maxi", "Mustermann")  
Maxi Mustermann  
>>> res  
>>> print(res)  
None
```

Funktion definieren - 4

```
>>> def say_hello(name):  
...     return "Hello, " + name  
...  
>>> say_hello("Maxi")  
'Hello, Maxi'  
>>> print(say_hello("Mini"))  
Hello, Mini  
>>> message = say_hello("Otto")  
>>> message  
Hello, Otto
```

Funktion definieren - 5

```
>>> def sum(a, b):  
...     return a + b  
...  
>>> sum(1, 2)  
3  
>>> sum("abc", "def")  
'abcdef'
```

Funktion definieren - 6

```
>>> def sum(a, b):  
...     res = a + b  
...     return res  
...  
>>> sum(3, 4)  
7
```

```
>>> res  
Traceback (most recent call last):  
  File "<stdin>", line 1, in <module>  
NameError: name 'res' is not defined
```

Funktion definieren - 7

```
>>> res = 0
>>> def acc(x):
...     return res + x
...
>>> res = acc(3)
>>> res
3
>>> res = acc(4)
>>> res
7
```


Funktion definieren - 8

```
>>> def acc(x):  
...     res = res + x  
...     return res  
...  
>>> acc(3)
```

Traceback (most recent call last):

File "<stdin>", line 1, in <module>

File "<stdin>", line 2, in acc

UnboundLocalError: local variable 'res' referenced

Funktion definieren - 9

```
>>> res = 0
>>> def acc(x):
...     global res # pfui!
...     res = res + x
...
>>> acc(3)
>>> res
3
>>> acc(4)
>>> res
7
```

Strings

```
>>> apples = 3
>>> oranges = 4
>>> msg = str(apples) + " apples and " + \
str(oranges) + " oranges..."
>>> msg
'3 apples and 4 oranges...'
>>> msg = "{} apples and {} oranges...".format(\
apples, oranges)
>>> msg
'3 apples and 4 oranges...'
>>> msg = "{:<4} apples and {:>4} oranges...".\
format(apples, oranges)
>>> msg
'3      apples and      4 oranges...'
```