Python Notizen

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»Die Mathematik ist die Sprache der Natur, ihre Buchstaben sind Dreiecke,
Kreise und andere Figuren.«

– Galileo Galilei

✓ keywords

1 boolean true false

```python
# boolean true, false
log_var1 = True == (1 > 2) # False
log_var2 = True == (2 > 1) # True
```

2 and or not

```python
# and, or, not
log_var3 = True and True # True
log_var4 = True or False # True
log_var5 = not False # True
```

3 break continue

```python
# break, continue
while True:
    break    # ende
    continue # abbruch
```

4 class

```python
# class
#class Coffee:
    # Define your class
```

5 funktion

```python
def say_hi():
    print("hi")


say_hi()
```

6 if elif else

```python
x = int(input("Eingabe Zahl: "))
if x > 3: print("Big")
elif x == 3: print("3")
else: print("Small")
```

7 for while

```python
# For
for i in [0,1,2]:
    print(i)

# While
j = 0
while j < 3:
    print(j); j = j + 1
```

8 in

```python
# in
liste = [2, 39, 42]
log_var6 = 42 in liste # True
log_var6
```

9 is

```python
# is
y = x = 3
log_var7 = x is y # True
```

10 None

```python
# None
print() is None # True
```

11 lambda

```python
# lambda
(lambda x: x+3)(2) # 5
```

12 return

```python
# return
def increment(x):
    return x + 1


increment(4) # returns 5
```

Vektor und Matrix

array1	=	10	100	1000

array2	=	1	2	3
		4	5	6

Berechne

array2 + 1	=	2	3	4
		5	6	7

array2 * array2	=	1	4	9
		16	25	36

array2 * array1	=	10	200	3000
		40	500	6000

array2 @ array2.T	=	14	32
		32	77

array2.T	=	1	4
		2	5
		3	6