

CHEAT SHEET

Variable types

<code>int</code>	positive / negative integers
<code>float</code>	positive / negative decimal numbers
<code>str</code>	more than one character
<code>bool</code>	values can be only true or false

Constant values (Literals)

<code>int</code>	123
<code>float</code>	123.456
<code>string</code>	"ABCDEFGH" oder 'ABCDEFGH'
<code>bool</code>	True False

Conditional operators

<code><</code>	less than
<code><=</code>	less than or equal
<code>==</code>	equal
<code>>=</code>	greater than or equal
<code>></code>	greater than
<code>!=</code>	not equal

Logical operators

<code>and</code>	AND
<code>or</code>	OR
<code>not</code>	NOT

while loop

```
while condition1:  
    # run statement until condition1  
    # becomes false
```

Arithmetic operators

<code>+</code>	add	<code>-</code>	subtract
<code>*</code>	multiply	<code>/</code>	divide
<code>+=</code>	increment	<code>-=</code>	decrement

for loop

```
for i in range(0, 10):  
    print(i)
```

```
for i in range(0,10):  
    for j in range(0,20):  
        # repeat statements j * i times  
        print(j * i)
```

Conditional statement

```
if condition1:  
    # statements to run, if condition1 is true  
elif condition2:  
    # statements to run, if condition2 is true  
else:  
    # Run statements if no previous conditions  
    # was true
```

Class

```
class ClassName:  
    def __init__(self, parameters): # Constructor  
        # statements automatically executed,  
        # when instance created  
        print(parameters)
```

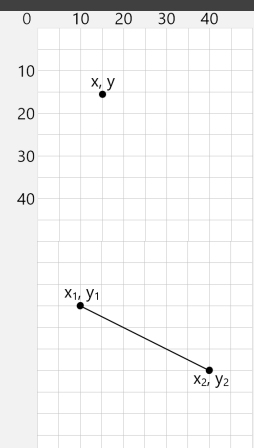
```
def methodName(self, parameters):  
    return 10;
```

```
# declare variable  
theClass = ClassName("args")  
theClass.methodName ("arguments")
```

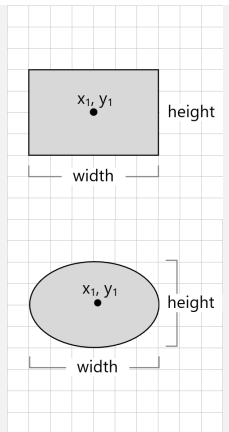
Basic shapes

```
point (x, y)
```

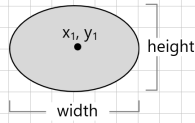
```
line (x1, y1, x2, y2)
```



rect (x, y, width, height)



ellipse(x, y, width, height)

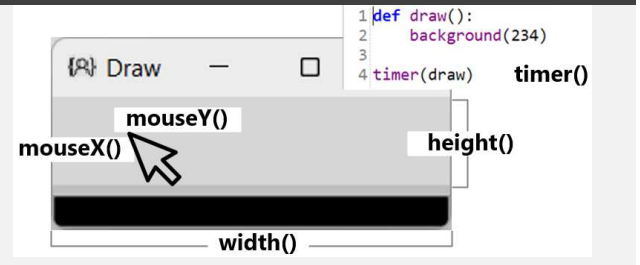


Text

Hello

- textSize** (32) set the font size
- textFont** ("Cookie") set the font
- text** ("Hello") draws text to the canvas

Canvas functions



Shape attributes

- fill** (color) set the fill color
- noStroke** () paint no stroke
- stroke** (color) set the color
- strokeWeight**(weight) set the line width

Color



fill (0)



fill (128)



fill (255)



fill (255, 0, 0)



fill (0, 255, 0)



fill (0, 0, 255)



fill(255,0,0,255)



fill(255,0,0,156)



fill(255,0,0,65)

Canvas settings

- background** (color) erase the canvas with the color
- ellipseMode** (mode) location of the anchor point
CENTER
CORNER
- rectMode** (mode) location of the anchor point
CENTER
CORNER
- print** ("Hello") write text to the console
- print** (Width) to find errors

Input functions

- mouseIsPressed** true, if any mouse is pressed
- keysPressed** true, if any key is pressed
- key** pressed key of type char
- keyCode** code for non-visible character of type KeyCodes

Math methods

- random**(0, 100) returns a random number between min and max
- dist** (0,0, 100, 0) calculates the distance between two points