

# 1 Help

To get help on a specific command, you can write `help` command. Don't hesitate to check scilab's online help :

<http://scilab.io/getting-started-overview/>

At first you might want to work directly in Scilab's console. But, if you want to be able to save your work or edit it, then you should use Scipad to write your programs (by clicking on the first icon in the toolbar).

## 1.1 Working with arrays

Scilab was written so that working with arrays (or matrices) is very easy. Try the following commands in the console :

```
A = [1 2]
B = [3 4]
C = [A ; B]
```

Accessing the elements of an array is done by using parentheses :

```
C(1,2)
C(1, :)
A($)
```

Last but not least, you can create an array that ranges from a number to another with a given step :

```
D = -1 :.5 :2
```

## 1.2 Plotting a function

```
x = -5 :.1 :1 ;
y = sin(x) ;
z = exp(x) ;
plot2d(x,y,2) //Try changing 2 to 3
plot2d(x,z,-1) //Try changing -1 to -2
legends(["a", "b", "c"], [1,2,-1])
```

## 1.3 The for loop

```
for i = 1 :5
    disp(i) ;
end
```

## 1.4 The while loop

```
i = 0
while i<5
    disp(i) ;
    i = i + 1 ;
end
```

## 1.5 Creating a function

```
function [x, y]=myfct(a, b)
    x=a+b
    y=a-b
endfunction
```

```
[x,y]=myfct(3,2)
```

## 1.6 The if-then-else statement

```
function [res]=agetest(x)
    if x < 0 then
        res = "Stop messing around"
    elseif x < 18 then
        res = "error"
    else
        res = "ok"
    end
endfunction
```