

Sep 25th, 2018

CS 301 - More Functions

Lecture 6

①

Logistics

- P2 due tomorrow (Wed) - office: 11-12:15 T, W
- Midterm 1 - next week - Oct 4th (Thu)
- Midterm 1 conflicts - fill form.
 - due: Thursday, Sep 27th.

Review

in built functions

- max(), min(), print(), input(), etc

math functions

- math.factorial()
- math.exp() e^x
- math.log()
- And lots more!

Writing your own function.

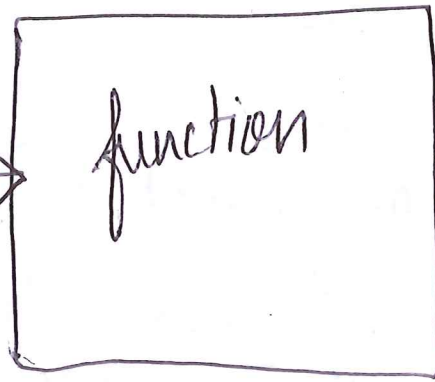
- func. name
- input: parameters / arguments
- output: return value.

(2)

Input

Output

parameters
or
arguments



Return values

1. Definition of a func.
or
Defining a function.

2. Calling a function.

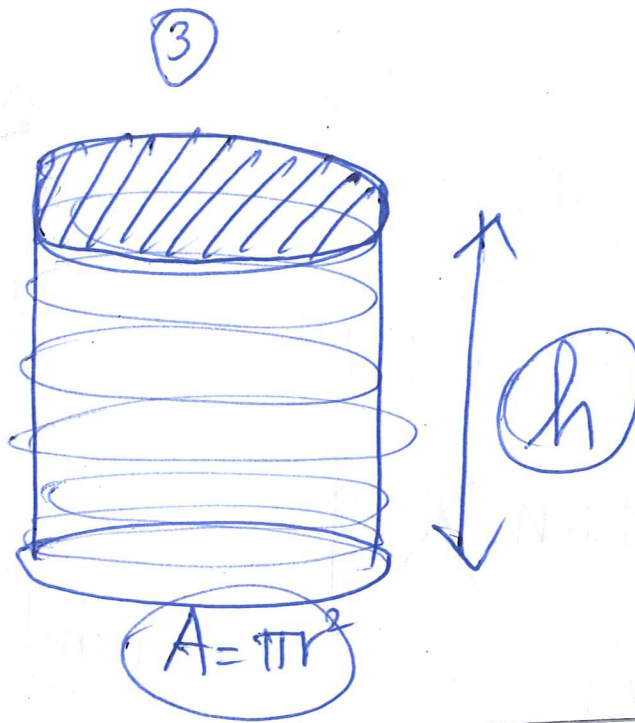
3. Flow of execution

parameter

```
def area_of_circle(radius):  
    area = radius * radius * 3.14  
    return area
```

a = area_of_circle(10)

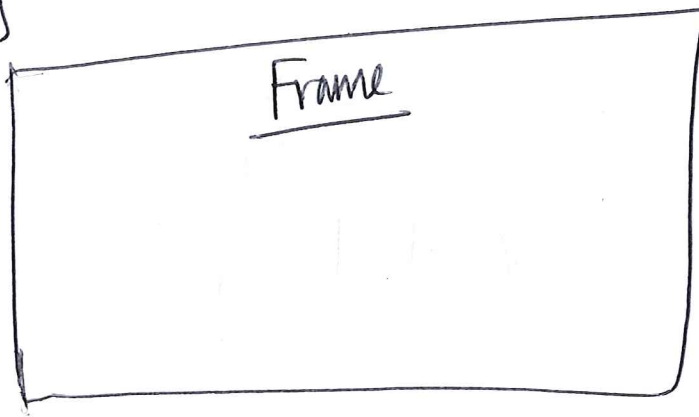
Arguments are actual, argument



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1. Local variables
 2. Global variables
 3. Argument passing
-

Frames

main



code outside
any func.

(4)

```
def f(x):  
    y = x + 1  
    return x y
```

```
# #main  
num = 1  
out = f(num)
```

Frames

Global frame

main

num

out

f(x):

x

y

return Value

$x = x + 1$

$x += 1$