

Ex Sort3.py

If a function does not execute a return stmt, then the special value None is returned.

Ex BubbleSort.py

let $x = 2, y = 3$

x	y	$temp$
2 3	3 2	2

$temp = x$
 $x = y$
 $y = temp$

} swaps x and y

x	y	$temp$
3	2	2

example

<u>x</u>	<u>y</u>	<u>z</u>
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3	7	+
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7	<u>3</u>	
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1st swap

.	x	3
---	---	---

2nd swap

1	2	
---	---	--

3rd swap

result

<u>x</u>	<u>y</u>	<u>z</u>
1	2	3

another example

<u>x</u>	<u>y</u>	<u>z</u>
2	5	2

2	5	2
---	---	---

1st

2	2	5
---	---	---

2nd

3rd

result

<u>x</u>	<u>y</u>	<u>z</u>
2	2	5

Ex, Sort 4.Py

Sort 4 numbers using Bubble-Sort algorithm.

Exercise.

- write Sort5.Py (sort 5 numbers)
- write Sort6.Py (" 6 ")

Chapter 6: more on functions

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o read chap. 6

Ex. write a function that returns the absolute value of a number.

$$|x| = \begin{cases} x & \text{if } x > 0 \\ 0 & \text{if } x = 0 \\ -x & \text{if } x < 0 \end{cases}$$

Bad solution

```
def f(x):  
    if x < 0:  
        return -x  
    elif x > 0:  
        return x  
    # end if-elif  
# end f()
```

[note. if $x = 0$,
then None will
be returned.]

[to fix, include
an else case]

[better make elif $x > 0$
be just else.]

Ex. words.py

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next time