

Python Programming

Variables Homework 3

(Hard)

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Homework 1: Swapping 3 numbers!

- Write a code to swap 3 numbers
- Let say we have numbers $a = 115, b = 20, c = 301$
- We wanna their final values to be: $a = 20, b = 301, c = 115$

```
2
3 num1, num2, num3 = map(int, input().split())
4
5 # write code here
6 # challenge: one approach only 4 lines
7
8 print(num1, num2, num3)
9
```

Homework 2: Print Me

- Write a program that reads 2 integers A, B
 - B is either -1 or 1
 - If B is -1, print $2*A+1$
 - If B is 1, print $A*A$
- Input: 7 1 \Rightarrow 49.0
- Input: 7 -1 \Rightarrow 15.0
- Hint
 - You need to think in a **1 line formula** for the output

Homework 3: Sum numbers from 1 to N

- Write a program that reads integer N and Print the sum from 1 to N
 - E.g. If input N = 5, then Output is: 15
 - Why? As $1+2+3+4+5 = 15$
 - Below table of more values
 - $3 \Rightarrow 6$ ($1+2+3$)
 - $4 \Rightarrow 10$ ($1+2+3+4$)
 - $5 \Rightarrow 15$ ($1+2+3+4+5$)
- You need to find a **simple 1 line formula** to solve the problem :)
 - Hint: Let N = 8. Write numbers from 1 to 8
 - What is the sum of 1st and 8th number? sum of 2nd and 7th? And so on
 - Your formula should be good for even and odd N. Be careful programmer!

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”