

Given a signed 32-bit integer  $x$ , return  $x$  *with its digits reversed*. If reversing  $x$  causes the value to go outside the signed 32-bit integer range  $[-2^{31}, 2^{31} - 1]$ , then return 0.

Assume the environment does not allow you to store 64-bit integers (signed or unsigned).

Example 1:

Input:  $x = 123$

Output: 321

Example 2:

Input:  $x = -123$

Output: -321

Example 3:

Input:  $x = 120$

Output: 21

Constraints:

- $-2^{31} \leq x \leq 2^{31} - 1$

Approach :

32 bit integer maximum is  $2^{31}$ .

So our number must be within  $2^{31}$  and  $-2^{31}$ .

Step - 1 : initialize  $rev = 0$

Step - 2 : reverse integer until  $x$  is not equal 0

Step - 3 : for overflow cases if  $rev \geq 2^{31}$  and  $rev < -2^{31}$  then it returns 0.