UWPC

Question 3

Reverse What?

Ahmad is tasked to give you a signed 32-bit integer x. He wants you to return a the integer x with its digits reversed. If reversing x causes the value to go outside the signed 32-bit integer range [-2147483648 to 2147483647], then return 0.

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

Input

- An Integer x, where x is in the range [-2147483648 to 2147483647]

Output

- An Integer, where the digits of x are reversed. If reversing x causes the value to go outside the signed 32-bit integer range [-2147483648 to 2147483647], then return 0.

Sample 1

Input

```
123
```

Output

```
321
```

Explanation: 123 reversed is 321, which is in the range [-2147483648 to 2147483647].

Sample 2

Input

```
-123
```

Output

```
-321
```

Explanation: -123 reversed is -321, which is in the range [-2147483648 to 2147483647].

Sample 3

Input

```
120
```

Output

```
21
```

Explanation: 120 reversed is 21, which is in the range [-2147483648 to 2147483647].

Sample 4

Input

```
2147483647
```

Output

```
0
```

Explanation: 2147483647 reversed is 7463847412, which is greater than the range [-2147483648 to 2147483647]. Therefore, we return 0.