

11 May 2023

<https://my.newtonschool.co/playground/code/yrw1lpbdji18>

Inbox (35,482) - ingledarshan x Newton School x Newton School x +

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REC

Sync ✓

You

Modulo Arithmetics

$n = 54321$

① $n = n/10 \rightarrow 5432$
② $n = n/10 \rightarrow 543$
③ $n = n/10 \rightarrow 54$
STOP

$n = 123$

① $n = n/10 \rightarrow 12$
STOP

$n = 9987$

① $n = n/10 \rightarrow 998$
 $n = n/10 \rightarrow 99$
STOP

DI

Dr. Darsha... (you)

Chat

To everyone 1

Jasmeen Kansagara 5m ago
Good Evening Sir ..

Arunangshu Mullick 5m ago
Is this same logic of palindrome sir?

Okay sir...

Yogesh G. Rajpayle 3m ago
N<99

Arunangshu Mullick 2m ago
plz repeat

Yes

why >99 sir?

oo 99

got it

1 Reaction

YES 1 NO 0 🤔 0 🙄 0 🙊 0

Message..

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while(N > 99) } only 1st two digits are left.
 $n = n/10$

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<https://my.newtonschool.co/playground/code/yrw1lpbdji18>

Problem Statement

int rev = 0;

Given a number N your task is to print its first two digits in reverse order. For eg:- If the given number is 123 then the output will be 21.

Input

User Task:

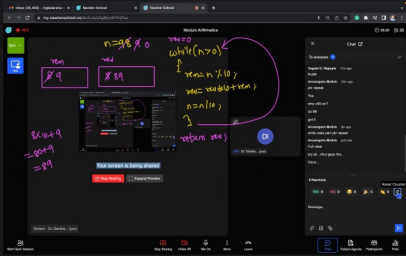
Since this will be a functional problem, you don't have to take input. You just have to complete the function **firstTwo()** that takes integer N argument.

$n = 98$
while(n > 0)
{
 $rem = n \% 10$; // $rem = 8$ $rem = 9$
 $rev = rev \times 10 + rem$; // $rev = 8$ $8 \times 10 + 9$
 $n = n / 10$; // $n = 9$ $n = 0$
}
return rev



rem
89

rev
889



```
rev=0
while(n>0)
{
    rem=n%.10;
    rev=rev*10+rem;
    n=n/10;
}
return rev;
```

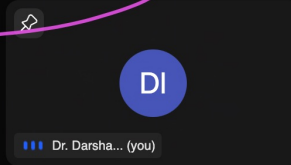
$8 \times 10 + 9$
 $= 80 + 9$
 $= 89$

Your screen is being shared

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Expand Preview

Screen - Dr. Darsha... (you)



Chat

To everyone 1

Yogesh G. Rajpayle 11m ago
N<99
Arunangshu Mullick 10m ago
plz repeat
Yes
why >99 sir?
oo 99
got it
Arunangshu Mullick 3m ago
while wala part plz repeat
Arunangshu Mullick just now
Full clear
sry sir...vhlul geyeye the...
Hmm...

8 Reactions

YES 8 NO 0 🍌 0 🎉 0

Message..



Bitwise Operations

Bitwise $\&$

a	b	$a \& b$
0	0	0
0	1	0
1	0	0
1	1	1

Bitwise $|$

a	b	$a b$
0	0	0
0	1	1
1	0	1
1	1	1

Bitwise XOR:

a	b	$a \wedge b$
0	0	0
0	1	1
1	0	1
1	1	0

XOR Properties: $a \wedge b = c \implies a \wedge c = b \implies b \wedge c = a$

$$b \wedge b = 0$$

$$(a \wedge b) (c \wedge b) = a \wedge c$$

To swap (a, b) using XOR:

$$a = a \wedge b$$

$$b = a \wedge b$$

$$a = a \wedge b$$

eg: $a = 1011$
 $b = 0110$

$$\begin{array}{r} a \wedge b = 1011 \\ \quad 0110 \\ \hline a = 1101 \end{array}$$

$$\begin{array}{r} a \wedge b = 1101 \\ \quad 0110 \\ \hline b = 1011 \end{array}$$

$$\begin{array}{r} a \wedge b : 1101 \\ \quad 1011 \\ \hline a = 0110 \end{array}$$

$a = 0110$
 $b = 1011$

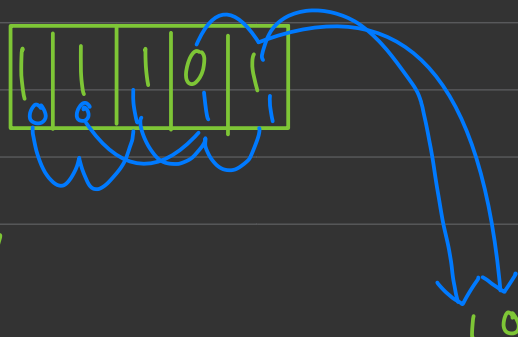
Bitwise NOT: $\neg a$

a	$\neg a$
0	1
1	0

Right Shift \gg

$a = 29 (11101) \ \& \ x = 2$

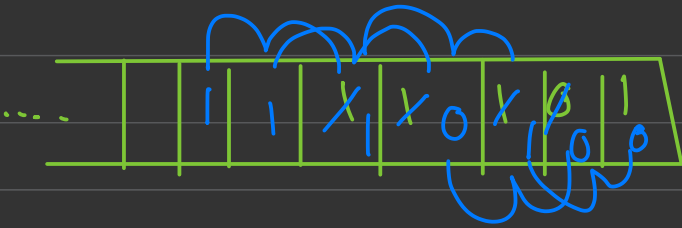
$\therefore a \gg 2$ means



$\therefore a = 111$ i.e. 7

Left Shift operator:

$$a = 29 \text{ (11101)} \quad \& \quad a \ll 2$$



$$\therefore a = 1110100 \\ = 116$$

_____ X _____