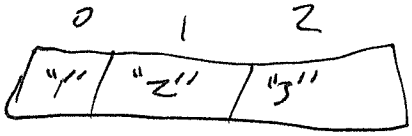
Slide 4

	stack	pop	pop	push(21)	peek
Top	17	returns 17	returns 13		
	13	13		21	returns 21
Bottom	28	28	28	28	stack stays the same

When writing ArrayPureStack

pop



size = 3

stack.pop() → "3" return data[2] → "3"

- means returning index 2
- must decrement first
- index 2 is now "unallocated" even though data is in there
- it will be forgotten about / overwritten

Implementing Recursion

getBinary.java

getBinary(int n)

1. n is only local variable
2. activation record will have return address, value of n
3. string returned is pushed onto stack just before return is made

n = 6

prior to getBinary's first activation record

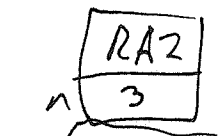
"11"

after second activation completed

Then "11" + 6%2

→ "110"

after completion of first activation



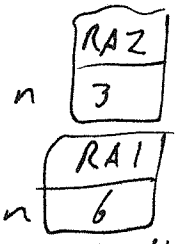
prior to second activation

2 records

3 records

prior to third activation

"1"



after third activation completed

Then "1" + 3%2 → "11"

getBinary Iterative

myStack	n	n>1
~~0~~ 1 0	~~6~~	T
~~0~~	~~3~~	T
!	1	F

Return "110"