

2) increment R0  
STR current Add

0 1 2 3

left char R1  
right char

R5

left Addr  
Right Addr

Stop when left  $\geq$  right

2) Find Minimum Index :

- ptr to min element : R0 (initially 1st)
- min element's value : R1
- ptr to each element : R2
- each element's value : R3
- - addr of final element : R4

0 1 2 3 4

b

a

mod - return

String  
Shift

2) caesar cipher :

• caesar :

find length

get arguments for mod and mod-return  
(push a, push b)

• mod :

R4 := a (pop)

R5 := b (pop)

Work on R4, R5 → mod-return  
push (mod-return)  
ret (caesar)

( mod-return  
String  
Shift )

2) Leapfrog:

R0: inc

R1: func\_addr

R2: value at func\_addr

R3: copy\_addr = func\_addr + inc

R4: start\_copy = copy\_addr

R5: stop\_addr

negate stop\_addr

if ( R4 + R5 == 0 )  
HALT

while R2 + R2 != 0

restore arr

LDR R2, R3, #0

R1++

R3++

R2 = 0

STR R3, R2

JMP R4

-R3 -R4

3) merge sort

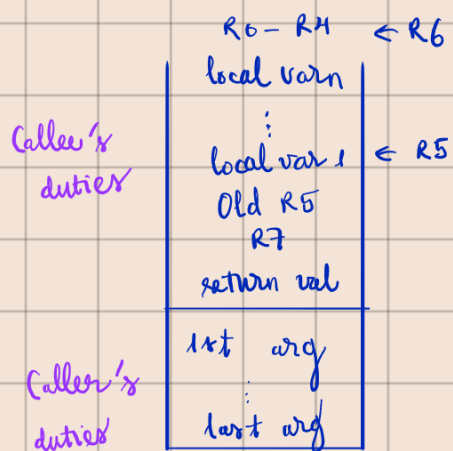
MERGE SORT (arr, buf, start, end)

MERGE( a992, buf, start, mid, end )

5, 2, 3, 1

1st run: 16384, 20480, 0, 1, 2

i = 0 j = 1, k = 0



start	0	i	0
mid	1	j	1
end	2	k	0
	1		
	1		
	1		