

Go to the End of the Loop

```

AT_LEAST_A
ADD R6,R2,R4
BRp MORE_THAN_Z
ALPHA
ADD R2,R2,R0
LDR R6,R2,#0
ADD R6,R6,#1
STR R6,R2,#0
BRnzp GET_NEXT

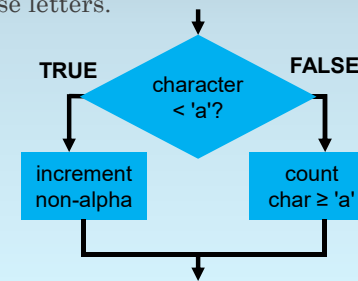
```

We are done counting this character.

Branch (always) to the end of our loop.

We Need to Check for the Middle Region

Next, we want to look for the start of the lower case letters.



Subtract x60 to Make the Next Comparison

x00	x40	x41	x5A	x5B	x60	x61	x7A	x7B	x7F
NUL	@	A	Z	[]	a	z	{	DEL

We want to subtract **x60** (backquote, '`').

But we already subtracted '@' from **R2**, so now add '@' - '`' (let's keep this value in **R5**).

Let's write the result back to **R2** so that lower case letters produce values 1 to 26 in **R2**.

Add (@ - `) to Compare with Lower Case a

```

MORE_THAN_Z
ADD R2,R2,R5

```

Compare with lower case a.

Add R5 ('@' - '`') to R2 and write the sum back to R2.