



0011 0000 0000 0000	;Load Address
0101 010 010 1 00000	;R2 = 0
0010 011 0 0001 0000	;R3 = pointer
1111 0000 0010 0011	;R0 = target (input)
0110 001 011 00 0000	;R1 = 1st char
;Top of Loop	
0001 100 001 1 11100	;R4 = R1 - 4
0000 010 0 0000 1000	;Exit if 0 (R1 == 4)
1001 001 001 11 1111	
0001 001 001 1 00001	
0001 001 001 000 000	;R1 = R0 - R1
0000 101 0 0000 0001	;Skip if not 0
0001 010 010 1 00001	;R2++ (count++)
0001 011 011 1 00001	;R3++ (pointer++)
0110 001 011 00 0000	;R1 = next char
0000 111 1 1111 0110	;JUMP to Top of Loop
;Loop Exit	
0010 000 0 0000 0100	;
0001 000 000 000 010	;R0 = ASCII(count)
1111 0000 0010 0001	;Print count
1111 0000 0010 0101	;Halt
;Data / Variables	
0011 0001 0000 0000	;String address
0000 0000 0011 0000	;x30 ASCII '0'