```
 1          AREA     Countdown, CODE, READWRITE
 2          ENTRY
 3
 4      start
 5          LDR R4, = array
 6          LDR R5, = arrayend
 7          SUBS R5, R5, #4
 8
 9      loop
10          LDR R8, [R4]        ;first element
11          LDR R9, [R5]        ;pointer to last element
12
13          CMP R8, R9          ;not a palindrome if they are not equal
14          BNE notp
15
16          ADD R4, R4, #4      ;increment pointer
17          SUBS R5, R5, #4     ;decrement pointer
18
19          CMP R4, R5
20          BGT done            ;if left pointer goes beyond right pointer, all the elements have been
     parsed
21          B loop
22
23      done
24          MOV R1, #1          ;move 1 to register if it is a palindrome
25          B end
26
27      notp
28          MOV R1, #2          ;move 2 to register if it is not a palindrome
29      end B end
30
31      array DCD 10,20,30,40,50,60,40,30,20,10    ; the given string in ASCII is stored in the array
32      arrayend DCD 0                             ; 0 is after the last element of the array to store
     end of string
33
34          END
```