PALINDROME

ABCDEDCBA
0 1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1 0
A B C D E D C B A ⟩ Same

MIRRORED STRING

3AIAE
Same ⟨
1) EAIA3
2) 3AIAE

MIRRORED PALINDROME

{ A → A
  T → T
  O → O

Same ⟨
ATOYOTA
0 1 2 3 4 5 6
6 5 4 3 2 1 0
ATOYOTA

Same ⟩
1) ATOYOTA
2) ATOYOTA

word
XABEBAX
0 1 2 3 4 5 6

1) word[0] == word[6] ?
  YES → keep checking
  NO → not palindrome

2) !transform(word[6]) ||
   word[0] == transform(word[6]) ?
  YES → keep checking
  NO → not mirrored string

3) word[1] == word[5] ?

4) word[1] == transform(word[5]) || !transform(word[5]) ?

5) word[2] == word[4] ?

6) word[2] == transform(word[4]) || !transform(word[4]) ?

7) odd number of letters?   mc ← middle letter
   YES: !transform(mc) || mc != transform(mc) ? → YES → not mirrored string

8) PRINT
   • if (palindrome)
        if (mirror) → palindrome mirror
        else   → palindrome
     else
        is (mirror) → mirror string
        else   → not palindrome