



Problem of the Week

Problem D

Working on Camera

Today we are going to be working on camera. To be more precise, we are going to count certain arrangements of the letters in the word *CAMERA*.

The six letters, *C*, *A*, *M*, *E*, *R*, and *A* are arranged to form six letter “words”. When examining the “words”, how many of them have the vowels *A*, *A*, and *E* appearing in alphabetical order and the consonants *C*, *M*, and *R* not appearing in alphabetical order? The vowels may or may not be adjacent to each other and the consonants may or may not be adjacent to each other.

For example, each of *MAAERC* and *ARAEMC* are valid arrangements, but *ACAMER*, *MEAARC*, and *AEACMR* are invalid arrangements.

