

A security code contains 2 letters followed by 3 digits and finally one symbol that can be a letter or a digit. Repetition is allowed. Answer in UNSIMPLIFIED form, but using exponents where possible. The parts are all SEPARATE from each other.

1. How many different codes do not repeat any letters?
2. How many codes have an A, B, or C as the first letter and an X or 3 as the last symbol?
3. How many codes have an A, B, or C as the first letter OR an X or 3 as the last symbol?
4. How many codes use exactly 2 Hs and 1 vowel?
5. How many codes do NOT have the letters SR side-by-side in that order?
6. How many codes use at least one 9?