Directions: Answer the problem given below.

1. A state decides that its license plate numbers will each consist of 7 characters: a nonzero digit from 1-9, followed by three upper-case Roman letters (from *A-Z*), followed by three more digits from 0-9. For example, $4CAR302$ is one possibility.

a. How many license plates are there in total?

b. How many license plates are there that use distinct digits (though letters may repeat)?

c. How many license plates are there that don't use any of the letters R, S, T, L, N, E?

d. How many license plates have the same first and last digit?