Practice questions for Week 1 learning

Q-1: Consider the following structure definitions and variable declarations:

```
struct Customer {
   char lastName[ 15 ];
   char firstName[ 15 ];
   int customerNumber;

   struct {
      char phoneNumber[ 11 ];
      char address[ 50 ];
      char city[ 15 ];
      char state[ 3 ];
      char zipCode[ 6 ];
   } personal;

} customerRecord, *customerPtr;

customerPtr = &customerRecord;
```

Write a separate expression that accesses the structure members in each of the following parts:

a. Member `lastName` of structure `customerRecord`.
b. Member `lastName` of the structure pointed to by `customerPtr`.
c. Member `firstName` of structure `customerRecord`.
d. Member `firstName` of the structure pointed to by `customerPtr`.
e. Member `customerNumber` of structure `customerRecord`.
f. Member `customerNumber` of the structure pointed to by `customerPtr`.
g. Member `phoneNumber` of member `personal` of structure `customerRecord`.
h. Member `phoneNumber` of member `personal` of the structure pointed to by `customerPtr`.
i. Member `address` of member `personal` of structure `customerRecord`.
j. Member `address` of member `personal` of the structure pointed to by `customerPtr`.
k. Member `city` of member `personal` of structure `customerRecord`.
l. Member `city` of member `personal` of the structure pointed to by `customerPtr`.
m. Member `state` of member `personal` of structure `customerRecord`.
n. Member `state` of member `personal` of the structure pointed to by `customerPtr`.
o. Member `zipCode` of member `personal` of structure `customerRecord`.

Q-2: Write a program that demonstrates passing an array by value. [Hint: Use a `struct`.] Prove that a copy was passed by modifying the array copy in the called function