Q.1 Write a Program to find the square of each element of a given 1D array using a Pointer.

For example,

Input:

Enter the array's size: 5

Enter array's elements:

a[0] = 2
a[1] = 4
a[2] = 1
a[3] = 3
a[4] = 7

Output:

Square of each element:

4, 16, 1, 9, 49

Ans: #include <stdio.h>

```c
int main() {
 int k;
 printf("Enter the Array's size:");
 scanf("%d",&k);
 printf("Enter array's elements:\n");

 int sequre[k];
   int *ptr_s = sequre;

 for( int i=0; i<k; i++){
    printf("a[%d]=",i);
    scanf("%d",&sequre[i]);
 }
printf("Square of each element:");

 for(int i=0;i < k; i++,ptr_s++){
    printf("%d ,",(*ptr_s) * (*ptr_s));
 }
printf("\n");
   return 0;
}
```

O\p: /tmp/NKmFHzDcpL.o

Enter the Array's size:5

Enter array's elements:

a[0]=2
a[1]=4
a[2]=1

a[3]=3
a[4]=7
Square of each element:4 ,16 ,1 ,9 ,49 ,

=== Code Execution Successful ===

Q.2 Write a Program to swap two variables using Pointers.

For example,

Input:

Enter the value of x: 5

Enter the value of y: 3

Output:

Before swapping:

x: 5

y: 3

After swapping:

x: 3

y: 5

Ans:
```c
#include <stdio.h>
void swap(int *x, int *y) {
    int k = *x;
    *x = *y;
    *y = k;
}
int main() {
    int x, y;
    printf("Enter the value of x: ");
    scanf("%d", &x);
    printf("Enter the value of y: ");
    scanf("%d", &y);
    printf("Before swapping:\nx: %d\ny: %d\n", x, y);
    swap(&x, &y);
    printf("After swapping:\nx: %d\ny: %d\n", x, y);
    return 0;
}
```

O\p: /tmp/CARblvYtN9.o

Enter the value of x: 5

Enter the value of y: 3

Before swapping:

x: 5

y: 3

After swapping:

x: 3
y: 5

=== Code Execution Successful ===