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:

```
// Online C compiler to run C program online
#include <stdio.h>
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:
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:

```
// Online C compiler to run C program online
#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:

```
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 ===
```