

1- Can you guess the output of following C program?

```
#include <stdio.h>
int main()
{
    int var =10;
    int *p;
    p= &var;

    printf ( "Address of var is: %p", &var);
    printf ( "\nAddress of var is: %p", p);

    printf ( "\nValue of var is: %d", var);
    printf ( "\nValue of var is: %d", *p);
    printf ( "\nValue of var is: %d", *( &var));

    /* Note I have used %p for p's value as it represents an address*/
    printf( "\nValue of pointer p is: %p", p);
    printf ( "\nAddress of pointer p is: %p", &p);

    return 0;
}
```

2- Write a program in C to add two numbers using pointers.

Test Data :

Input the first number : 5

Input the second number : 6

Expected Output :

The sum of the entered numbers is : 11

3- Write a program in C to store n elements in an array and print the elements using pointer.

Test Data :

Input the number of elements to store in the array :5

Input 5 number of elements in the array :

element - 0 : 5

element - 1 : 7

element - 2 : 2

element - 3 : 9

element - 4 : 8

Expected Output :

The elements you entered are :

element - 0 : 5

element - 1 : 7

element - 2 : 2

element - 3 : 9

element - 4 : 8

4- Write a program in C to Calculate the length of the string using a pointer

Test Data :

Input a string : w3resource

Expected Output :

```
The length of the given string w3resource
is : 10
```

5- Write a program in C to swap elements using call by reference.

Test Data :

Input the value of 1st element : 5

Input the value of 2nd element : 6

Input the value of 3rd element : 7

Expected Output :

```
The value before swapping are :
element 1 = 5
element 2 = 6
element 3 = 7
```

```
The value after swapping are :
element 1 = 7
element 2 = 5
element 3 = 6
```

6- Write a program in C to compute the sum of all elements in an array using pointers.

Test Data :

Input the number of elements to store in the array (max 10) : 5

Input 5 number of elements in the array :

element - 1 : 2

element - 2 : 3

element - 3 : 4

element - 4 : 5

element - 5 : 6

Expected Output :

```
The sum of array is : 20
```

7- Write a program in C to print a string in reverse using a pointer.

Test Data :

Input a string : w3resource

Expected Output :

```
Pointer : Print a string in reverse order :
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Input a string : w3resource
Reverse of the string is : ecruser3w
```