

Ans1 - Write a program to print the address of an integer variable whose value is input by the user.

```
#include<iostream>
using namespace std;
// function answer 4.

v int main(){
    // answer 1.
    int n;                // declare of variable
    cin>>n;               // taking input from user
    int *ptr=&n;           // storing address of n variable
    cout<<ptr<<endl;     // printing of output

    return 0;
}
```

```
PS D:\cppprograme\.vscode> cd "d:\cppprograme\.vscode\" ; if ($?) { g++ assignment_pointer_1.cpp ; if ($?) { .\assignment_pointer_1 } }
8
0x61ff08
PS D:\cppprograme\.vscode>
```

Ans 2 - Write a program to find the product of 2 numbers using pointers

```
1  #include<iostream>
2  using namespace std;
3  // function answer 4.
4
5  int main(){
6
7      // answer 2.
8      int a,b;           // declare of two variable
9      cin>>a>>b;        // taking input from user
10     int *ptr1=&a;       // storing address of a variable
11     int *ptr2=&b;       // storing address of b variable
12     int result=(*ptr1)*(*ptr2); // declare a variable and store product of two variables using of def
13     cout<<result<<endl; // printing of output
14
15     return 0;
16 }
17
```

```
PS D:\cppprograme\.vscode> cd "d:\cppprograme\.vscode\" ; if ($?) { g++ assignment_pointer_1.cpp
assignment_pointer_1 } ; if ($?) { .\assignment_pointer_1 }
4
5
20
PS D:\cppprograme\.vscode> |
```

Ans 3 - Write a function that returns the largest and the smallest number out of 3 given numbers. The main function should call this function to get the largest and smallest number and print

The output.

```
.vscode > C++ practice.cpp
1  #include <iostream>
2  #include<vector>
3  using namespace std;
4  int smallestAndLargest(int x,int y, int z, int *largest){
5      *largest=max(x,max(y,z));
6      return min(x,min(x,y));
7  }
8
9
10 int main() {
11     int x,y,z;
12     cin>>x>>y>>z;
13     int largest;
14     int smallest=smallestAndLargest(x,y,z,&largest);
15     cout<<largest<<" "<<smallest;
16     return 0;
17 }
18
```

PowerShell 7.3.2

```
PS D:\cppprogram> cd "d:\cppprogram\.vscode\" ; if ($?) { g++ practice.cpp -o practice
}
3
5
9
9 3
PS D:\cppprogram> .vscode>
```

Ans 4 - Implement the swap function using pointers.

```
1  #include <iostream>
2  #include<vector>
3  using namespace std;
4  void swap(int *x,int *y){
5      int *temp;
6      temp=x;
7      x=y;
8      y=temp;
9      return;
10 }
11
12 int main() {
13     int x,y;
14     cin>>x>>y;
15     swap(x,y);
16     cout<<x<<" "<<y<<endl;
17     return 0;
18 }
19
```

```
PS D:\cppprograme\.vscode> cd "d:\cppprograme\.vscode\" ; if ($?) { g++ pr
if ($?) { .\practice }
10
20
20 10
PS D:\cppprograme\.vscode> 
```

Ans 5 - Write a function that returns the first character, last character and the number of occurrences of 't' in a string input by user.

```
.vscode > C++ practice.cpp
1  #include <iostream>
2  #include<vector>
3  using namespace std;
4  int firstAndLast(string s,char *first,char *last){
5      *first=s[0];
6      *last=s[s.size()-1];
7      int count=0;
8      for(auto &ch:s)
9          if(ch=='t')
10             count++;
11     return count;
12 }
13
14
15 int main() {
16     string s;
17     cin>>s;
18     char first, last;
19     int count=firstAndLast(s,&first,&last);
20     cout<<first<<" "<<last<<" "<<count;
21
22     return 0;
23 }
```

```
; if ($?) { .\practice }
twitter
t r 0
PS D:\cppprograme\.vscode> cd "d:\cppprograme\.vscode\" ; if ($?) {
; if ($?) { .\practice }
twitter
t r 3
PS D:\cppprograme\.vscode>
```