```cpp
#include <iostream> //task 1
using namespace std;

int main() {
int num = 10;
int* ptr;
ptr = &num;

cout<<"Value of num: " <<num<<endl;
cout<<"Address stored in ptr: " <<ptr<<endl;
cout<<"Value at the address stored in ptr: "<<*ptr<<endl;
return 0;
}
```
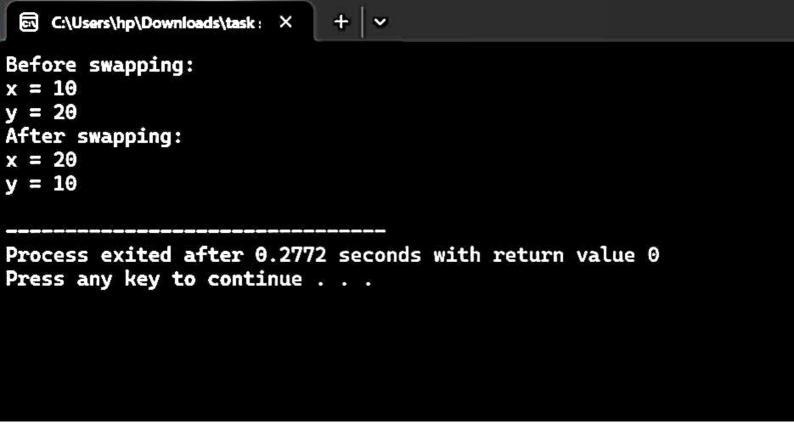
```
Value of num: 10
Address stored in ptr: 0x6ffe04
Value at the address stored in ptr: 10

-----------------------------------
Process exited after 0.275 seconds with return value 0
Press any key to continue . . .
```

```
Before swapping:
x = 10
y = 20
After swapping:
x = 20
y = 10


--------------------------------
Process exited after 0.2772 seconds with return value 0
Press any key to continue . . .
```

```cpp
#include <iostream> //task 2
using namespace std;

void swap(int*a,int*b)
{int temp=*a;
  *a=*b;
  *b=temp;}

int main()
{
int x=10;
int y=20;
cout<< "Before swapping:" << endl;
cout<< "x = " <<x<< endl;
cout<< "y = " <<y<< endl;

swap(&x,&y);

cout<<"After swapping:" <<endl;
cout<<"x = " <<x<<endl;
cout<<"y = " <<y<<endl;

return 0;
}
```

```cpp
#include <iostream> //task 3
using namespace std;

int square(int numb) {
return numb*numb;
}
int main() {
int(*squarePtr)(int)=square;

int numb;
cout<<"Enter a number: ";
cin>>numb;

int result = squarePtr(numb);
cout <<"Square of "<<numb<<" is: "<<result<<endl;
return 0;
}
```

```
Enter a number: 7
Square of 7 is: 49


--------------------------------
Process exited after 2.535 seconds with return value 0
Press any key to continue . . .
```

```cpp
#include <iostream> //task 4
using namespace std;

int main() {
int var=5;
int*pointVar=&var;

cout<<"Original value of var: " <<var<<endl;
cout<<"Address of var: " <<&var<<endl;
cout<<"Value stored in pointer pointVar: " <<pointVar<< endl;
cout<<"Content of the address pointed to by pointVar: "<<*pointVar<<endl;

cout<<"Enter a new value for var: ";
cin>>*pointVar;
cout <<"Updated value of var: " <<var<< endl;
return 0;
}
```

```
Original value of var: 5
Address of var: 0x6ffe04
Value stored in pointer pointVar: 0x6ffe04
Content of the address pointed to by pointVar: 5
Enter a new value for var:
```