

8.1 Introduction to Pointers

In an executable program, every variable has three major items associated with it:

- 1.)The value stored in the variable.
- 2.)The number of bytes reserved for the variable.
- 3.)Where in memory these bytes are located.

The memory location of the first byte reserved for a variable is known as the variable's address.

Knowing the location of the first byte and how many bytes have been allocated to the variable allows the executable program to access the variable's contents.

After a variable name is declared, programmers are usually concerned only with the name and the value assigned to it and pay little attention to where this value is stored.

For example:

Refer to Program 8.1

```
include<iostream>
using namespace std;

int main()

int num;

num = 22;
cout<< "The value stored in num is " << num<< endl;
cout<< sizeof(num) << " bytes are used to store this value" << endl;

return 0;
```