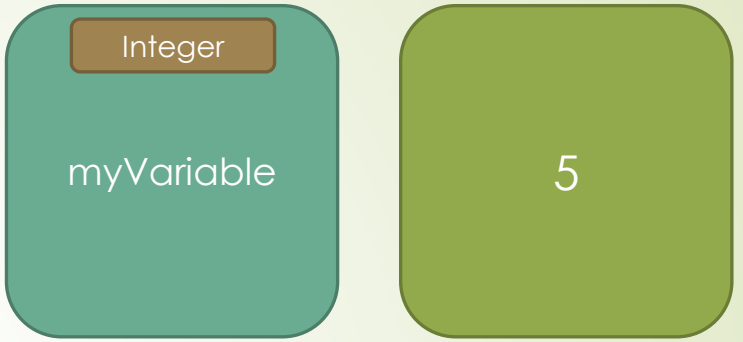
Variables
+(sizeof)



- Int a;
- a = 5;
- Int a=5;
- Int a=5,b,c=4;
- Double d = 23.534534;
- Bool = true;
- Auto au = 4;
- Const Double PI = 3.14;
- a=a+1; ?? (= meaning in programming)(not equal to a-1=a or a=a-1)
- a=b=c

Operators

- Arithmetic: x+y, x-y, …., x++, ++x , x--, --x
- Assignment: x=y, x+=2, x*=2, x&=3, x|=3, x^=3,x>>=3
- Comparison: x==y, x!=y, x>y, x<=y,…
- Logical: &&, ||, !

Exercise

- Swap two varialbes

```cpp
#include<iostream>

using namespace std;

int main(){
    int a=5, b=6, temp;
    temp = a;
    a = b;
    b = temp;
    //cout<<a<<endl<<b;
    cout<<a<<"\n"<<b;

    return 0;
}
```

choose appropriate word for variables

- Names can contain letters, digits and underscores
- Names must begin with a letter or an underscore (_)
- Names are case-sensitive (`myVar` and `myvar` are different variables)
- Names cannot contain whitespaces or special characters like !, #, %, etc.
- Reserved words (like C++ keywords, such as `int`) cannot be used as names

```
int file_size; // Snake Case
int FileSize;  // Pascal Case
int fileSize;  // Camel Case
```

Exercises

- - Calculate the Area of a Rectangle

```cpp
#include<iostream>
using namespace std;
int main(){
    int length=4,width=6,area;

    area = length*width;

    cout<< area;

    return 0;
}
```