

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace PropertiesC
{
    class Box
    {
        // member variable
        private string color = "white";
        public int length;
        public int height;
        //public int width;
        public int volume;

        // auto - implemented property - enter "prop" + press tab twice
        public int Width { get; set; }

        public Box(int length, int height, int width)
        {
            this.length = length;
            this.height = height;
            this.Width = width;
        }

        public int Volume
        {
            get
            {
                return Height * Width * Length;
            }

            set
            {
                volume = value;
            }

        }

        public int Height
        {
            get
            {
                return height;
            }
            set
            {
                if (value < 0) //throw new Exception("Size should be positive");
                    Console.WriteLine("A negative value has been inputed and has been changed to positive");
                value = -value;
                height = value;
            }
        }

        public int Length
        {
            get => length;

            set => length = value;
        }
    }
}
```

/\* one way you can do this is by doing the following:

-----

```
public void SetLength(Int length)
{
    this.length = length
}
```

-----

and then set the variable as

```
private int length;
```

-----

```
public int GetLength()
{
    return this.length;
}
```

\*/

```
public int FrontSurface
```

```
{
    get { return height * length; }
}
```

```
public void DisplayInfo()
```

```
{
    Console.WriteLine("Length is {0} and heighth is {1} and width is {2} so the volume is {3}",
        Length, Height, Width, volume = Width*Height*Length);
}
```

```
}
```

```
}
```