

# C# 13 cheat sheet

## params collections

```
public void Concat<T>(params ReadOnlySpan<T> items)
{
    foreach (var item in items)
        Console.Write($"{item} ");
    Console.WriteLine();
}
```

```
Concat(1, 2, 3);
Concat(stackalloc int[] {4,5,6});
Concat(myList); // IEnumerable<T> also supported
```

## New lock type

```
var myLock = new System.Threading.Lock();
lock (myLock)
{
    // uses Lock.EnterScope() under the hood
}
```

## New escape sequence \e

```
Console.WriteLine("\e[1mBold Text\e[0m");
```

## Implicit ^-index in initializers

```
var buffer = new TimerRemaining
{
    buffer =
    {
        [^1] = 0,
        [^2] = 1,
        // ...
    }
};
```

## More partial members

```
partial class C
{
    public partial string Name { get; } // declaration
}
```

```
partial class C
{
    public partial string Name => _name; // implementation
    private string _name = "Alice";
}
```