# C# Programming Reference Sheet

Other Things

**Reading from Terminal**

Console.ReadLine();

**Writing to Terminal**

Console.WriteLine(“ “);

Console.Write(“”);

**Comments**

//

/\*

onetwothreefourfive

\*/

Arrays

**Declaration**

String[ ] bikes = new String[10];

Rider[ ] riders = new Rider[4];

**Access**

bikes[0]; riders[10];

**Loop with index i**

for(int i=0;i< bike.length; i++) { }

**For each loop**

foreach (string bike in bikess) { }

foreach (Rider rider in riders) { }

Boolean Operators and Other Statements

**Comparison: equal, less, larger, not equal, less eq**

==, , !=, <=

**Boolean: And, Or and Not**

&&, ||, !

**Skip an iteration of a loop**

continue;

**End a loop early**

break;

**End a method:**

return;

Structured Programming Statements

**If statement**

If( condition ){ then } else { then }

**Case statement**

switch( variable ) {default: break;}

**While loop**

while (condition) {do}

**Repeat loop**

do { } while (condition)

**For loop**

for(int i =0;i < 10;i++) { }

Programs and Modules

**Creating a program**

namespace program {

class mainprogram {

}

}

**Using a class from a library**

#include Swin;

Custom Types

**Classes**

class Bike

{

public string color = "white";

}

**Enumerations**

enum Color { Black, White, Brown }

**Structs**

struct\_body

: '{' struct\_member\_declaration\* '}'

;

Declaring Methods

**Declare a method with parameters:**

public static void addstr(string p1, string p2, string p3){ }

**Declare a method that returns data:**

public static int myMethod() { }

//return int value 7 return 3+4;

**Pass by reference:**

public void myMethod(ref int x) {x = 10;}

(The passed parameter can be modified by the method so the value passed is the memory location of the argument.)

Simple Programming Statements

**Constant declaration**

const int;

**Variable declaration**

string message;

**Assignment**

message = “Welcome”;

**Method call**

Console.ReadLine();

**Sequence of statements - grouped**

{ }

Built In Data Types & Literals

**Integers**

int, byte, short, long

**Floating Point Numbers**

double, decimal, float

**Strings and Characters**

String, char

**Boolean**

bool (true or false)

Working with Strings

**Assignment (giving a string a value)**

string x = “Welcome”;

**Concatenation (joining strings)**

string y = x + “ Mate!”;

**Comparison**

x == y, x == “Welcome”, “Welcome” != “Mate”

**Construction from other types:**

string x = a.ToString();

string y = Convert.ToString(4);