# Recursion By Hand: a 'warm-up' exercise

# Warm-up #2

**The goal for this exercise** is to understand how what recursion is, how it operates within the computer (at a mechanical level), and to use that knowledge to successfully predict what a function produces as output. The longer-term goal is to get you familiar enough with recursion that you can eventually write (and debug, using the skills you’re developing in this exercise) your own recursive code.

**What you need to do for this exercise:**

1. Figure out (by hand) what the following method will print. Feel free to use the 'print this out a bunch of times' trick:
2. (If you're handing this in for Pre-Class Exercises, simply write the output that you predict into comments in the class named Warmup\_Number2)

namespace RecursionExercises

{

 class Class1

 {

 [STAThread]

 static void Main(string[] args)

 {

 PrintHelper ph = new PrintHelper();

 Console.WriteLine( "End result: " + ph.foo(5));

 }

 }

 class PrintHelper

 {

 public int foo(int f)

 {

 if (f >= 8)

 return f;

 Console.WriteLine( "Handed " + f );

int i;

if(f % 2 == 0)

i = foo(f + 2);

else

i = foo(f + 1);

 Console.Write( "the return value is: " + i);

 return i;

 }

 }
}