CS 371
Assignment #2
Why Can’t They be Like We Were
Perfect in Every Way
Due 2/3/20, in class

The goal of this assignment is to write an assembler program that reflects a compiler’s output from several control structures. This will be done by writing an assembler program that finds perfect numbers. Your program should print the perfect numbers from 1 to 500. Use the following “algorithm.”

```assembly
procedure main
    local int i
    for i = 1 to 500
        if is_perfect(i)
            print i
        end if
    end for
end main

boolean function is_perfect (int n)
    local boolean perfect
    local int k, sum
    perfect = TRUE
    sum = 0
    k = 1
    while perfect and k < n
        if n mod k == 0 then
            sum = k + sum
            if sum > n
                perfect = FALSE
            end if
        end if
        k = k + 1
    end while
    if sum != n
        perfect = FALSE
    end if
    return perfect
end is_perfect
```

What to hand in
(1)  A well-formatted 2-up printout of your code.
(2)  Upload to moodle your code and a png of a print screen showing its output.

Notes
(1)  Your code’s first two lines must be “; This is my code” followed by a comment that includes your name.
(2)  Be mindful of the control structures for, while, and if-then and if-then-else.
(3)  Don’t forget your header comments!