

## Lab Assignment #3 Week of 3 September

**Purpose:** Learn how to write recursive calls in MIPS.

**Assignment:** Write a MIPS assembly program to calculate the greatest common divisor using Euclid's algorithm. The program will read two integers from the terminal, and print out the greatest common divisor of these two integers back to the terminal. The Euclid's algorithm is given as follows in C style code:

```
int gcd(int a, int b)
{
    if (b == 0)
        return a;
    else
        return gcd(b, a % b);
}
```

Notice you need to pass the first and second arguments in \$a0 and \$a1 when calling the gcd function, and store the result in \$v0 before returning back from it.

**Turn in:** Issue this command on a CS machine to submit your code:

```
turnin cs341-fall07-lab3-[day] [yourLastName]-lab3.s
```

where day is replaced with wed, thu, or fri, depending on what lab you are enrolled in.

If you want to check and make sure what you turned in is there, type:

```
turnin -ls cs341-fall07-lab3-[day]
```