Introduction to Computer Engineering (E114)

Harris Spring 1999

Problem Set 6 **Due: Friday, March 12**

Reading: Chapter 2.1-2.9, 3.7-3.15

1-2) CPI, Instruction Counts, Throughput, and MIPS

1) Do Exercises 2.1-2.5 from the textbook.

2) Do Exercise 2.15 from the textbook.

3) Procedure Calls

Write a MIPS assembly language program for functions f1 and f2. Pay attention to properly saving and restoring registers across the procedure calls.

```
int f1(char c[], d)
{
        int i, j;

        i = c[3];
        j = f2(i);
        return j + c[1] + i + d;
}

int f2(int q)
{
        int i,j;

        i = q-7;
        j = 2*i+5;
        return j;
}
```

4) Time

Please indicate how many hours you spent on this problem set. This will not affect your grade, but will be helpful for calibrating the workload for next semester's class.