

- 5.35 Compare the time required to execute the following computation using a custom circuit versus using software. Assume a gate has a delay of 1 ns. Assume a microprocessor executes one instruction every 5 ns. Assume that $n=10$ and $m=5$. Estimates are acceptable; you need not design the circuit, or determine exactly how many software instructions will execute.

```
for (i = 0; i < n, i++) {  
    s = 0;  
    for (j = 0; j < m, j++) {  
        s = s + c[i]*x[i + j];  
    }  
    y[i] = s;  
}
```

Based on our answer for Exercise 5.32, we naively assume that each “for” statement requires 5 states. We’ll also assume that “s=0” requires one state, “s = s + c[i] * x[i + j]” requires one state.... **INCOMPLETE**