1. Compare between pipeline machine and non-pipeline machine. suppose there are (X+7) instructions in a program. Draw the page table and compute the following: (where X is the last digit of you ID number) \* consider there are 4 stages and each takes one clock cycle. 12

* Total time for pipeline and non-pipeline.
* CPI
* Speedup
* Efficiency or utilization

1. ‘Pipelining *does not reduce latency* of a single task’ proof this statement. 8