

Mock quiz

Tuesday, October 13, 2020 4:57 PM

If you are trying to pipeline a microprocessor, would you expect to see performance benefits as you increase pipeline stages indefinitely? If yes, justify. If no, state your reasons.

No, as your stages of pipelining increases indefinitely, the latency also increases, making the minimum amount of processing time for an instruction equal to the amount of stages in the pipeline. (1 cycle per stage) Larger programs and instructions could benefit, but the overall time per instruction would not be optimal