

Higher Computing: 14th March 2018

Computer Architecture

To prepare for this homework session, see if you can answer these questions. I will give the answers during the presentation.

1. The word size of a processor is a good indication of how big an instruction can be processed in one cycle. Which bus is responsible for transferring instructions from memory to the processor and how does it affect the size of instruction the processor can handle?
2. The Intel 8086 processor was a popular 8 bit (1 byte) word size chip used in home computers in the 80's. It had a 16 line address bus. How much memory would machines built with this processor be able to address?
3. People are still able to play games designed for early computers and consoles on modern machines which have different operating systems. How is this possible?