Computer Dissection

Today we are going to carefully take apart a computer and see what’s inside. As you go, take careful note of the pieces that your encounter and use your observations to answer the following questions:

Assignment:

1. Carefully disassemble the computer and find the CPU, the memory, and the motherboard.
   1. Draw a rough sketch of the CPU:
   2. Draw a rough sketch of the memory:
   3. Draw a rough sketch of the motherboard:
2. Look at the top of the CPU (you might have to scrape off some of the “thermal paste”). How many GHz does it run at? In English, explain what this means.
3. The Intel 8088 microprocessor from 1981 ran at 4.77 Mhz. How many times faster is your CPU compared to CPUs in 1981?
4. Look at the sticker on the sides of one of the memory sticks. How many GBs does it store? In English, explain what this means.
5. The original IBM PC released from 1980 had 640kb in memory. How many times bigger is your memory compared to memory in 1980?
6. Look at the top of the hard-drive. How many TBs does it store? In English, explain what this means.
7. The Seagate ST506 released from 1980 had 5mb of storage. How many times bigger is your hard-drive compared to hard-drives in 1980?
8. If you had 100 dollars in 1980 and it increased as quickly as the performance of your hard-drive, how much money would you have now?
9. Google "Moore’s law". What is it? How does your observations about the performance increases compared to the early 1980’s relate?