1. If you are building a processor and have to do static branch prediction (meaning you have to assume at compile time whether a branch is taken or not), how should you do it? You can make a different decision for branches that go forward or backward.
    a. In both cases, at least from what I saw, assuming the branch is taken will lead to better branch prediction than assuming not.
2. If you are building a 256-byte direct-mapped cache, what should you choose as your block (line) size?
    a. Try to keep blocksize on the lower end of the spectrum. 8 to 16 bytes per block being the ideal situation
3. What conclusions can you draw about the differences between compiling with no optimization and -O2 optimization?
    a. Increased optimization levels decreased dynamic instructions
    b. It decreased memory reads and writes and register reads and writes
    c. Branches slightly decreased but not by much
    d. Cache hit-rates decreased but this decrease is offset by the great decrease in number of memory accesses