

CS273 HW 3

1. A memory address much like a house address is a number associated with a memory location which allows the CPU to find it. In the same way arrays in programming languages have indexes.
2. 32 registers, R0 through R31
3. The program counter keeps track of which instruction we are running in program memory. It starts at 0 and each time we run an instruction it is incremented. However, instructions can also change the PC when we need to branch or jump to different instructions.
4. 16 bits are used. 0000-11rd-dddd-rrrr including the destination and source address.
5. 14 bytes
6. $\frac{1}{2} \times \sum_{i=0}^n 6^i$