1. A[$R0] uses indexed addressing mode and after calculating the effective address that is A+[R0] we have one memory access. @B is memory indirect hence we have 2 memory accesses one for B and another for going to the address stored in B.

2. 20 1 16 for the locations 1000, 1001 and 1020 respectively.

3. a)20 b)40 c)30

4. li and addi: register immediate Jal: pseudo-direct register direct and implicit and memory direct for pc we don't know could be register direct or absolute

Lw and sw: register direct and base addressing and memory direct

Jr: register direct, memory direct, could be register direct or absolute

Move: pseudoinstruction but if you treat it as real instruction then register direct

Syscall: cases discussed in class. Base addressing, memory indirect or direct for pc again we don't know register direct or absolute