1. 0110 1111 0000 0001
2. 1111 1110 1101 0011
3. 28417
4. -4,059
5. 28417
6. 8747
7. 57381
8. a
9. 6
10. 1111 1110 1101 0011
11. 64 billion
12. 2
13. 36
14. 2
15. 16 million
16. 1
17. 24
18. 1
19. Fetch: load MAR with contents of pc and increment pc

Decode: Examine instruction to figure out what the computer needs to do

Execute: carries out execution of instruction

1. 16, each opcode is 4 bits so 24 is 16
2. It can instantly access any location in memory, does not have to be sequential
3. Do operations on registers, ADD
4. Move data from registers to memory, LDR
5. Changes the sequence of instruction execution by changing the program counter, JMP