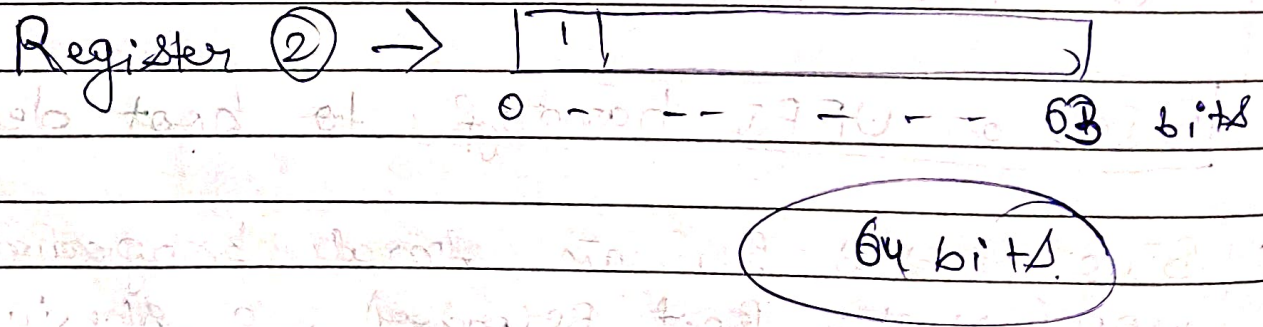
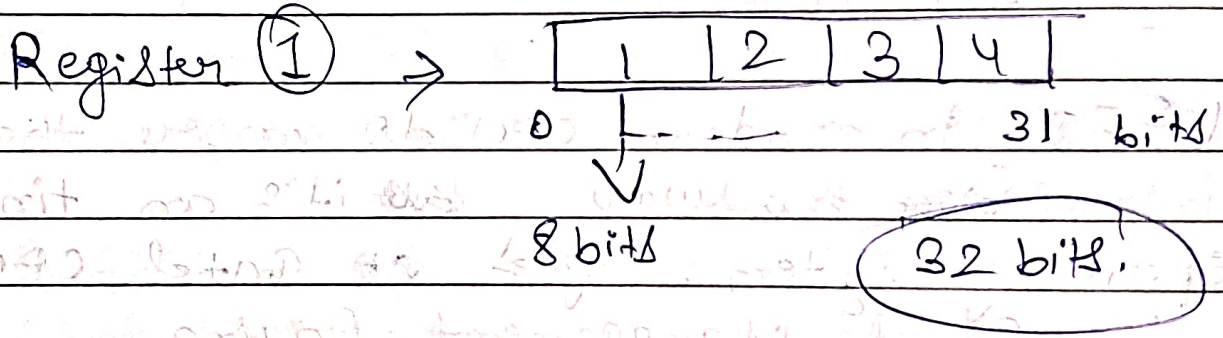
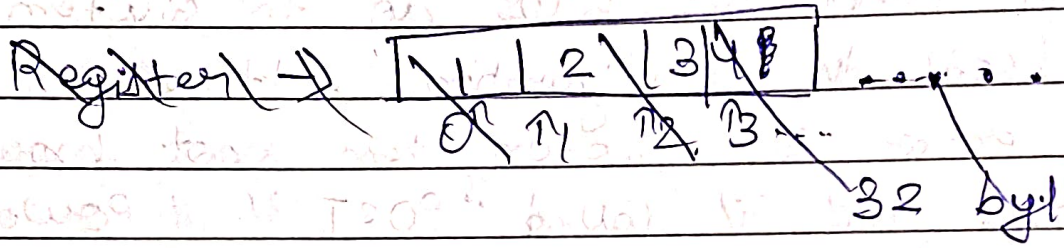


1-7

* 32 bit vs 64 bit OS



- A 32-bit OS has 32- registers, and it can access 2^{32} unique memory addresses i.e., 4 GB of physical memory (RAM).
- A 64-bit OS has 64- registers, and it can access 2^{64} unique memory addresses i.e., 17, 179, 869, 184 GB of physical memory (RAM).
- Advantages of 64-bit over 32-bit OS.

(a) Addressable Memory:- 32-bit :- 2^{32} memory address
64-bit :- 2^{64} memory address.

(b) Resource usage:- Installing more RAM on a 32-bit OS will not make any impact but on 64-bit OS will gives an big impact.

(c) Performance:- All calculations takes place in the registers. So, having larger registers allow us to perform larger calculations at the same time.

(d) Compatibility:- 64-bit CPU can run both on 32-bit & 64-bit OS. But 32-bit can't.

(e) Better graphics:- 64-bit graphics calculations makes it better for graphics.