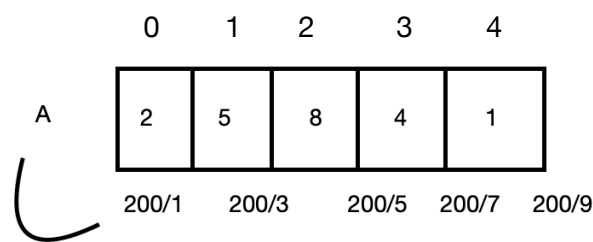


Array in Compilers

- Any location in an array can be accessed with the help of base address

Example :

`int A[5] = { 3,5,8,4,2 }`



- The formula used by any compiler to convert it is

$$\text{Addr}(A[i]) = \text{Lo} + i * w$$

Where ;

| | |
|-------|---------------------|
| Lo is | - base address |
| i | - Index |
| w | - Size of Data Type |

- Base address of an array will be updated when the program starts running and once the memory is allocated
- So the address of this is known during run time
- As the base address is relative the formula for it is also relative formula
- Suppose a in a different language if the index value starts from 1 then the formula for the compiler is as follows

$$\text{Addr}(A[i]) = Lo + (i - 1) * w$$