**ARRAYS**

* Big block of memory
* int students[10];
* Declaration Types:
  + int x[N]; 🡪 Automatically deallocated
  + int \*x = malloc(sizeof(int) \* N) 🡪 need to manually deallocate
* can’t initialize the pointer type array, i.e. int x[] = {0,2,4,6,8,10};

**CAESAR CIPHER**

* shifting all letters by x keys

**GLOBAL VARIABLES**

* “mutable” 🡪 can change
* Local variables (i.e. in scope of main).
  + Typically enclosed in curly braces
  + Cannot be access outside the function.
* Global Variable
  + Accessed anywhere in the program
  + Local variables take precedence.
* Initialized & uninitialized variables stored separately in memory.

#define – declaring constants.

* If need to change the #define number, can just change it in the define instead of overwriting.

**RSA**

Algorithm for encryption

* Two different keys. One public key, one private key (encryption and decryption).

**SCOPE**

* Have functions return values since functions use a copy

**RETURN TYPES**

* Sentinel values, null, successful values