Array variable Length Arrays

- So far, all the sizes of an array have been specified using a number.
- The term variable in variable-length array does mean that you can modify the length of the array after you create it.
  - ➔ A VLA keeps the same size after creation.
- Variable length arrays allow you to specify the size of an array with a variable when creating an array.
- C99 introduced variable -length arrays primarily to allow C to become a better language for numerical computing.
  - ➔ VLAs make it easier to convert existing libraries of FORTRAN number calculation routines to C
- You can not initialize a VL in its declaration.

Valid and invalid declarations of an array

```
int n = 5;
int m = 8;
float a1[5];              // yes
float a2[5*2 + 1];        // yes
float a3[sizeof(int) + 1];  // yes
float a4[-4];             // no, size must be > 0
float a5[0];              // no, size must be > 0
float a6[2.5];            // no, size must be an integer
float a7[(int)2.5];       // yes, typecast float to int constant
float a8[n];              // not allowed before C99, VLA
float a9[m];              // not allowed before C99, VLA
```