02/11/20
Data Structures & Dynamic Memory Allocation

A struct{} is a collection of variables.
A enum{} assigns names to a set of integers.

```
14  typedef struct {
15      /* TODO */
16      int length;
17      double* element;
18  } Vector;
```

```
14  typedef struct {
15      /* TODO */
16      int rows;
17      int cols;
18      double** element;
19  } Matrix;
```

malloc() requests memory from the operating system and returns it to the program.
calloc() requests memory, assigns zeros to all the positions and returns it to the program.
free() gives back memory to the operating system that had been dynamically assigned to the program.

Using the tool make (from MinGW) and a makefile with several terminal commands, you can compile a project from multiple source files.

int main(int argc, char* argv[])

argc is the number of strings on the command line (the first string is always the program name).
argv is a vector of pointers to character strings (argv[0] is the address of the string containing the program's name).