4. In code ~~###~~

5. The following program will first open a file called my.txt for writing only with read and write permissions for user only (will create file if does not exist). The program prints "How are you?" to standard output. Then, the program closes standard output, replacing it with the new file. Lastly, the program writes "I am fine Thank you. How about yourself?" to the file my.txt and then closes it.

6. foo: r--rw-rw-
   bar: -w--w-rw-

7. <u>Text editor</u> — The text editor
   is used to write your code.
   The editor edits the file according
   to a specific syntax to be read
   by the compiler.

   <u>preprocessor</u> — The preprocessor
   scans the source code file for
   any preprocessor directives (#····).
   This can be anything from defining
   precompiler macros, constants, type
   definitions, and most importantly
   library inclusions where code needs
   to be placed atop of your file
   so that library functions can be
   used.

   <u>Compiler</u> — The compiler is what
   turns your source code into
   machine code (executable and

object files) that are readable to the computer. The compiler does this by parsing the source file and finding what each keyword means in machine code.

Linker - The linker links object files together to create an executable. The compiler creates object files that are machine code files with info on their header/implementation file. These objects are connected by the linker to create the final executable.

8. a. $x

b. you