1. Write a for loop that prints the squares of the numbers between 1 and 100 inclusive.

2. Use a while loop to perform the same task as required in the previous question.

3. Given the following function prototype:

   ```c
   int Pythagoras(int opp, int adj, int hyp);
   ```

   implement this prototype such that it returns a 1 if the square of the hyp is equivalent to the sum of the squares of opp and adj.

4. Given the following function prototype:

   ```c
   int strncpy(char src[], char dest[], int len);
   ```

   implement this prototype such that the content of src is copied to dest. The copying process stops when either a '0' character is encountered in src or when len characters has been copied from src to dest. On completion, the function returns with a value that indicates the number of characters copied. The resulting string in dest is not '0' terminated.

5. Consider the following scenario. You want to define a module with 3 external interfaces (func1, func2 and func3) and 1 external state variable (status). You can make up the function’s type and parameters, likewise the variable. In this module you’ll also have several functions and variables that must not be accessible. How would you define this module to accomplish this.

6. Let’s assume you want to develop an address book program to store names and addresses of people you’ve met. You should define an array such that each element of that array contains a record of information, one per person. First of all define the required data structure followed by a function that adds a record and a function that finds a record.