P1. If AX=1001h and DX=20FFh, show the result and the contents of each flag register bit(C,AC,S,Z,O) after the ADD AX,DX instruction executes and SUB DX,AX executes.

P2. Develop a short sequence of instructions that adds AX, BX, CX, DX, and SP. Save the sum in the DI register.

P3. Write a program that adds the contents of a table (5 bytes) defined in the data segment. The table cells are initialized with the value 3. The results should be stored in the word Result. Check your result with the debugger.

P4. Write the following 8086 programs which:

a. Read a character from the keyboard and returns its ASCII value in AL (do not display the character).
b. Display a character given that its ASCII is in AL.
c. Read a hexadecimal character from the KB and returns its value in AL.
d. Display the contents of the AL register in hexadecimal format.

P5. Write a program that reads two integers (from 0-9), compute their Sum and then outputs the Sum. The two integers must not be separated by any character.

P6. Write a program that read two integers (from 0-99), compute their Sum and then output the Sum.

P7. Write a program that accepts a character from the keyboard, an attribute, a column number (0-79) and a row number (0-24). The program should display the character at the specified position on the screen (compute the address in the Video RAM where characters should reside).

P8. To the programs above, add a fragment that display the message "Bye" when finishing the programs.