

**Instructions.** Do each problem showing your work. Answers alone are not sufficient. Label each problem clearly, and write neatly, in a logical sequence.

Do the following problems from the text:

Page 567: 6, 10

Solve the following systems of linear equations.

$$\begin{array}{r} x_1 + 2x_2 + 3x_3 = 2 \\ 1. \quad 2x_1 + 5x_2 + 8x_3 = 2 \\ \quad 5x_1 + 8x_2 + 11x_3 = 14 \end{array}$$

$$\begin{array}{r} 2x_1 + x_2 - x_3 = 3 \\ 2. \quad \quad x_2 + 2x_3 = 1 \\ \quad 4x_1 + 2x_2 - 2x_3 = 7 \end{array}$$

$$\begin{array}{r} 2x_1 + 3x_2 - x_3 = 1 \\ 3. \quad x_1 - 2x_2 + 6x_3 = 11 \\ \quad 5x_1 + x_2 - x_3 = 12 \end{array}$$

$$\begin{array}{r} x_1 + 2x_2 - 3x_3 + 2x_4 = 2 \\ 4. \quad 2x_1 + 5x_2 - 8x_3 + 6x_4 = 5 \\ \quad 3x_1 + 4x_2 - 5x_3 + 2x_4 = 4 \end{array}$$