

1. Bollinger 5.12 assuming that hexadecimal system is used to represent numbers.

Hint: Digits are 3016 – 3A16 in the ASCII code (see Appendix C on pp. 598)
 Direct loading of numbers can be done by using # in front of the hexadecimal number,
 e.g., LOAD #1A

2. Bollinger 9.8.

Note: For part (c), use the table shown on page 415.

3. Bollinger 9.18

Hint: Construct a state diagram first using the following four states:

	SOL1	SOL2	SOL3
S1	0	0	0
S2	1	0	0
S3	1	1	1
S4	1	1	0

Then construct a ladder logic diagram.

4. Simplify the following Boolean expressions.

$$A \bullet B + \overline{A \bullet C} + C \bullet \overline{D} + \overline{B} \bullet \overline{D}$$

$$(A + B) \bullet (A + \overline{B} + C)$$