Exercise 1 Run the Find-S Algorithm on the following inputs.
(a)

| $x_{\mathrm{O}}$ | $x_{1}$ | $x_{2}$ | $x_{3}$ | $x_{4}$ | $x_{5}$ | $x_{6}$ | $x_{7}$ | $f(\bar{x})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |

(b)

| $x_{0}$ | $x_{1}$ | $x_{2}$ | $x_{3}$ | $x_{4}$ | $x_{5}$ | $x_{6}$ | $x_{7}$ | $f(\bar{x})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1 | 0 | 1 | 1 | 0 | O | 1 | 1 |
| O | 1 | 1 | 1 | 0 | 0 | 1 | 1 | O |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| O | 0 | 0 | 1 | O | 0 | O | 0 | 1 |
| 1 | 0 | O | 0 | 1 | 0 | 1 | 1 | O |
| 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 |
| O | 1 | 1 | O | O | O | O | 1 | 1 |

Exercise 2 Run the Candidate-Elimination Algorithm on the following inputs.
(a)

| $x_{\mathrm{o}}$ | $x_{1}$ | $x_{2}$ | $x_{3}$ | $f(\bar{x})$ |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 0 |

(b)

| $x_{\mathrm{O}}$ | $x_{1}$ | $x_{2}$ | $x_{3}$ | $f(\bar{x})$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 1 |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 |

