# Number of Boolean variables, $k = 2$

Truth Table
`input.txt`

| $x_1$ | $x_2$ | $f(x_1, x_2)$ |
|-------|-------|---------------|
| 0     | 0     | 1             |
| 0     | 1     | 0             |
| 1     | 0     | 1             |
| 1     | 1     | 1             |

Binary Tree Representation
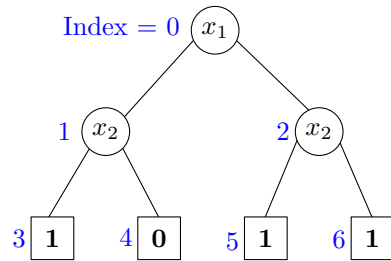


`output2a.txt`

| Index | data | left | right | level |
|-------|------|------|-------|-------|
| 0     | 1    | 1    | 2     | 1     |
| 1     | 2    | 3    | 4     | 2     |
| 2     | 2    | 5    | 6     | 2     |
| 3     | 1    | -1   | -1    | 3     |
| 4     | 0    | -1   | -1    | 3     |
| 5     | 1    | -1   | -1    | 3     |
| 6     | 1    | -1   | -1    | 3     |

Compact Representation
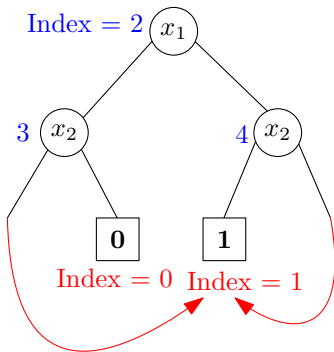


`output2b.txt`

| Index | data | left | right | level |
|-------|------|------|-------|-------|
| 0     | 0    | -1   | -1    | 3     |
| 1     | 1    | -1   | -1    | 3     |
| 2     | 1    | 3    | 4     | 1     |
| 3     | 2    | 1    | 0     | 2     |
| 4     | 2    | 1    | 1     | 2     |