

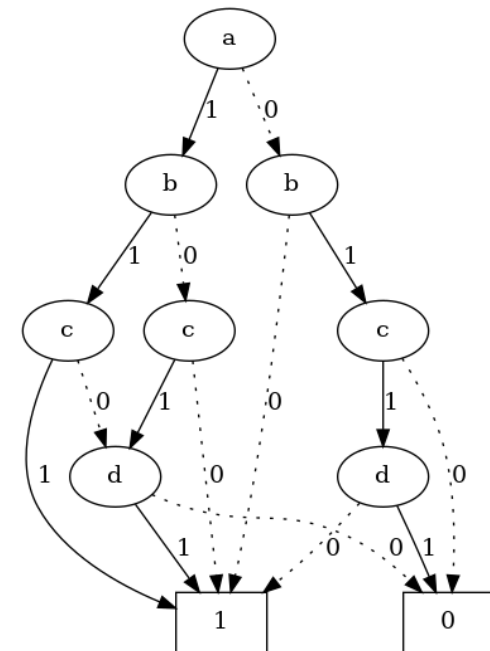
Case1: 4 variables

(a.pla)

```
.i 4
.o 1
.ilb a b c d
.ob F
.p 5
111- 1
0-10 1
1101 1
-011 1
-00- 1
.e
```

```
digraph ROBDD {
    0 [label="0", shape=box]
    1 [label="a"]
    2 [label="b"]
    3 [label="b"]
    5 [label="c"]
    6 [label="c"]
    7 [label="c"]
    11 [label="d"]
    13 [label="d"]
    16 [label="1", shape=box]

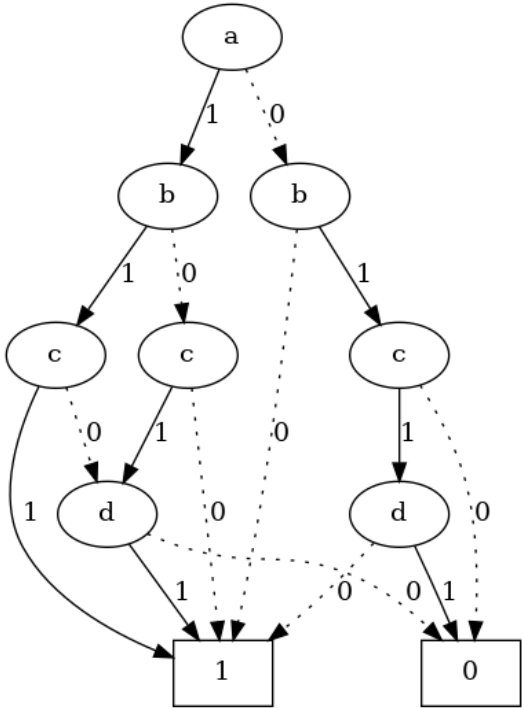
    1 -> 2 [label="0", style=dotted]
    1 -> 3 [label="1", style=solid]
    2 -> 16 [label="0", style=dotted]
    2 -> 5 [label="1", style=solid]
    3 -> 6 [label="0", style=dotted]
    3 -> 7 [label="1", style=solid]
    5 -> 0 [label="0", style=dotted]
    5 -> 11 [label="1", style=solid]
    6 -> 16 [label="0", style=dotted]
    6 -> 13 [label="1", style=solid]
    7 -> 13 [label="0", style=dotted]
    7 -> 16 [label="1", style=solid]
    11 -> 16 [label="0", style=dotted]
    11 -> 0 [label="1", style=solid]
    13 -> 0 [label="0", style=dotted]
    13 -> 16 [label="1", style=solid]
}
```



| Index | Variable | Else-edge | Then-edge | Comment |
|-------|----------|-----------|-----------|-----------|
| 0 | - | - | - | Boolean 0 |
| 1 | a | 2 | 3 | |
| 2 | b | 4 | 5 | |
| 3 | b | 6 | 7 | |
| 4 | c | 8 | 9 | |
| 5 | c | 10 | 11 | |
| 6 | c | 12 | 13 | |
| 7 | c | 14 | 15 | |
| 8 | d | 16 | 16 | |
| 9 | d | 16 | 16 | |
| 10 | d | 0 | 0 | |
| 11 | d | 16 | 0 | |
| 12 | d | 16 | 16 | |
| 13 | d | 0 | 16 | |
| 14 | d | 0 | 16 | |
| 15 | d | 16 | 16 | |
| 16 | - | - | - | Boolean 1 |

| Index | Variable | Else-edge | Then-edge | Comment |
|-------|----------|-----------|-----------|-----------|
| 0 | - | - | - | Boolean 0 |
| 1 | a | 2 | 3 | |
| 2 | b | 4 | 5 | |
| 3 | b | 6 | 7 | |
| 4 | c | 16 | 16 | |
| 5 | c | 0 | 11 | |
| 6 | c | 16 | 13 | |
| 7 | c | 13 | 15 | |
| 8 | d | 16 | 16 | redundant |
| 9 | d | 16 | 16 | redundant |
| 10 | d | 0 | 0 | redundant |
| 11 | d | 16 | 0 | |
| 12 | d | 16 | 16 | redundant |
| 13 | d | 0 | 16 | |
| 14 | d | 0 | 16 | redundant |
| 15 | d | 16 | 16 | redundant |
| 16 | - | - | - | Boolean 1 |

| Index | Variable | Else-edge | Then-edge | Comment |
|-------|----------|-----------|-----------|-----------|
| 0 | - | - | - | Boolean 0 |
| 1 | a | 2 | 3 | |
| 2 | b | 16 | 5 | |
| 3 | b | 6 | 7 | |
| 4 | c | 16 | 16 | redundant |
| 5 | c | 0 | 11 | |
| 6 | c | 16 | 13 | |
| 7 | c | 13 | 16 | |
| 8 | d | 16 | 16 | redundant |
| 9 | d | 16 | 16 | redundant |
| 10 | d | 0 | 0 | redundant |
| 11 | d | 16 | 0 | |
| 12 | d | 16 | 16 | redundant |
| 13 | d | 0 | 16 | |
| 14 | d | 0 | 16 | redundant |
| 15 | d | 16 | 16 | redundant |
| 16 | - | - | - | Boolean 1 |



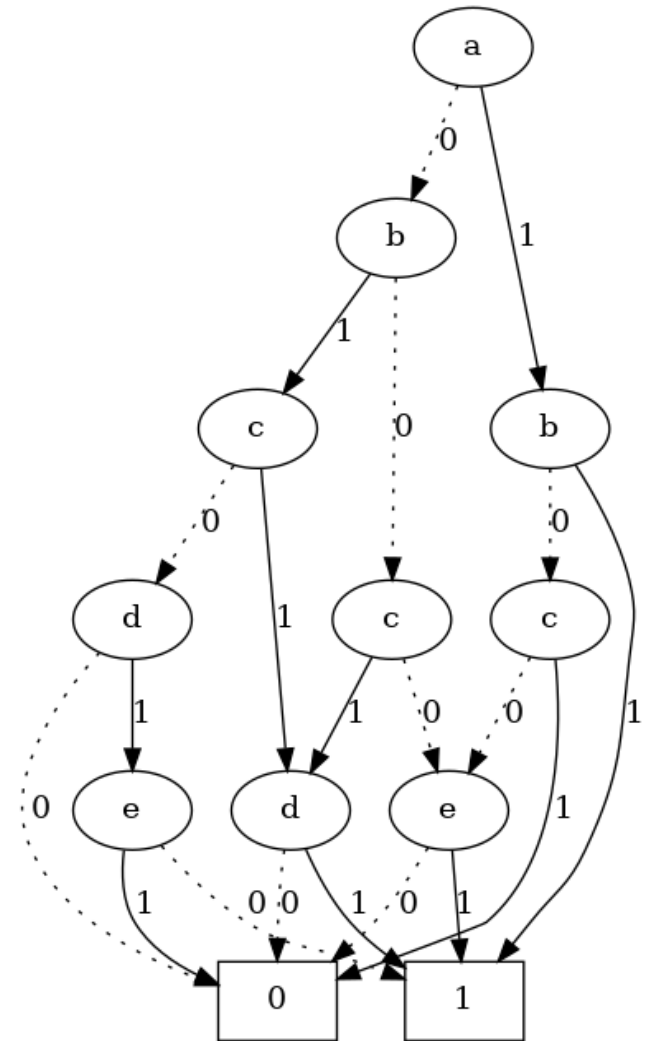
Case2: 5 variables

(b.pla)

```
.i 5
.o 1
.ilb a b c d e
.ob F
.p 4
11--- 1
0-11- 1
-00-1 1
-1010 1
.e
```

```
digraph ROBDD {
    0 [label="0", shape=box]
    1 [label="a"]
    2 [label="b"]
    3 [label="b"]
    4 [label="c"]
    5 [label="c"]
    6 [label="c"]
    9 [label="d"]
    10 [label="d"]
    16 [label="e"]
    21 [label="e"]
    32 [label="1", shape=box]

    1 -> 2 [label="0", style=dotted]
    1 -> 3 [label="1", style=solid]
    2 -> 4 [label="0", style=dotted]
    2 -> 5 [label="1", style=solid]
    3 -> 6 [label="0", style=dotted]
    3 -> 32 [label="1", style=solid]
    4 -> 16 [label="0", style=dotted]
    4 -> 9 [label="1", style=solid]
    5 -> 10 [label="0", style=dotted]
    5 -> 9 [label="1", style=solid]
    6 -> 16 [label="0", style=dotted]
    6 -> 0 [label="1", style=solid]
    9 -> 0 [label="0", style=dotted]
    9 -> 32 [label="1", style=solid]
    10 -> 0 [label="0", style=dotted]
    10 -> 21 [label="1", style=solid]
    16 -> 0 [label="0", style=dotted]
    16 -> 32 [label="1", style=solid]
    21 -> 32 [label="0", style=dotted]
    21 -> 0 [label="1", style=solid]
}
```



| Index | Variable | Else-edge | Then-edge | Comment |
|-------|----------|-----------|-----------|-----------|
| 0 | - | - | - | Boolean 0 |
| 1 | a | 2 | 3 | |
| 2 | b | 4 | 5 | |
| 3 | b | 6 | 7 | |
| 4 | c | 8 | 9 | |
| 5 | c | 10 | 11 | |
| 6 | c | 12 | 13 | |
| 7 | c | 14 | 15 | |
| 8 | d | 16 | 17 | |
| 9 | d | 18 | 19 | |
| 10 | d | 20 | 21 | |
| 11 | d | 22 | 23 | |
| 12 | d | 24 | 25 | |
| 13 | d | 26 | 27 | |
| 14 | d | 28 | 29 | |
| 15 | d | 30 | 31 | |
| 16 | e | 0 | 32 | |
| 17 | e | 0 | 32 | |
| 18 | e | 0 | 0 | |
| 19 | e | 32 | 32 | |
| 20 | e | 0 | 0 | |
| 21 | e | 32 | 0 | |
| 22 | e | 0 | 0 | |
| 23 | e | 32 | 32 | |
| 24 | e | 0 | 32 | |
| 25 | e | 0 | 32 | |
| 26 | e | 0 | 0 | |
| 27 | e | 0 | 0 | |
| 28 | e | 32 | 32 | |
| 29 | e | 32 | 32 | |
| 30 | e | 32 | 32 | |
| 31 | e | 32 | 32 | |
| 32 | - | - | - | Boolean 1 |

| Index | Variable | Else-edge | Then-edge | Comment |
|-------|----------|-----------|-----------|-----------|
| 0 | - | - | - | Boolean 0 |
| 1 | a | 2 | 3 | |
| 2 | b | 4 | 5 | |
| 3 | b | 6 | 32 | |
| 4 | c | 16 | 9 | |
| 5 | c | 10 | 9 | |
| 6 | c | 16 | 0 | |
| 7 | c | 14 | 15 | redundant |
| 8 | d | 16 | 17 | redundant |
| 9 | d | 0 | 32 | |
| 10 | d | 0 | 21 | |
| 11 | d | 22 | 23 | redundant |
| 12 | d | 24 | 25 | redundant |
| 13 | d | 26 | 27 | redundant |
| 14 | d | 28 | 29 | redundant |
| 15 | d | 30 | 31 | redundant |
| 16 | e | 0 | 32 | |
| 17 | e | 0 | 32 | redundant |
| 18 | e | 0 | 0 | redundant |
| 19 | e | 32 | 32 | redundant |
| 20 | e | 0 | 0 | redundant |
| 21 | e | 32 | 0 | |
| 22 | e | 0 | 0 | redundant |
| 23 | e | 32 | 32 | redundant |
| 24 | e | 0 | 32 | redundant |
| 25 | e | 0 | 32 | redundant |
| 26 | e | 0 | 0 | redundant |
| 27 | e | 0 | 0 | redundant |
| 28 | e | 32 | 32 | redundant |
| 29 | e | 32 | 32 | redundant |
| 30 | e | 32 | 32 | redundant |
| 31 | e | 32 | 32 | redundant |
| 32 | - | - | - | Boolean 1 |

| Index | Variable | Else-edge | Then-edge | Comment |
|-------|----------|-----------|-----------|-----------|
| 0 | - | - | - | Boolean 0 |
| 1 | a | 2 | 3 | |
| 2 | b | 4 | 5 | |
| 3 | b | 6 | 32 | |
| 4 | c | 16 | 9 | |
| 5 | c | 10 | 9 | |
| 6 | c | 16 | 0 | |
| 9 | d | 0 | 32 | |
| 10 | d | 0 | 21 | |
| 16 | e | 0 | 32 | |
| 21 | e | 32 | 0 | |
| 32 | - | - | - | Boolean 1 |

