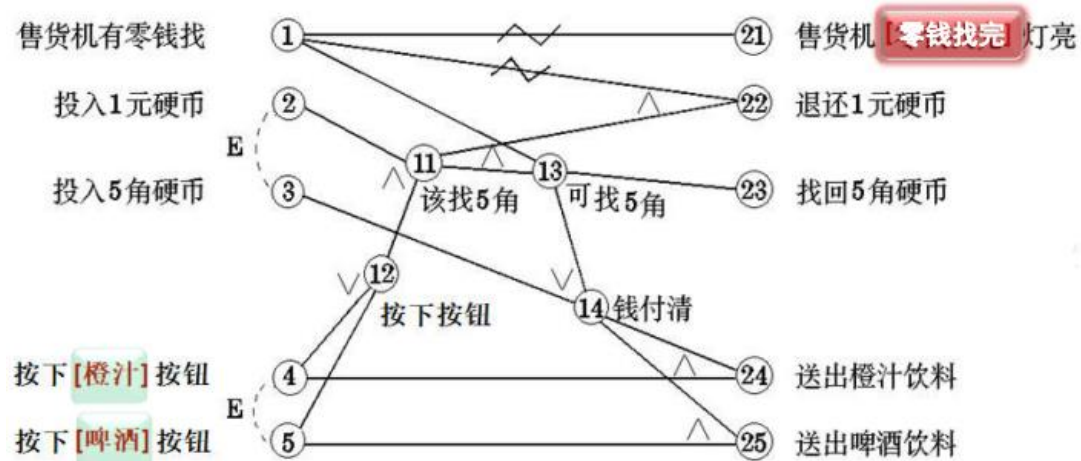


题目图示

(2) 画出因果图(续)



(3) 因果图转换成判定表 (续)

| 序 号 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | |
|------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 条 件 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | |
| | 4 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| | 5 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 中间结果 | 11 | | | | | | 1 | 1 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | | | | | | 1 | 1 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| | 12 | | | | | | 1 | 1 | 0 | | 1 | 1 | 0 | | 1 | 1 | 0 | | | | | | | 1 | 1 | 0 | | 1 | 1 | 0 | | 1 | 1 | 0 |
| | 13 | | | | | | 1 | 1 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | | | | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| | 14 | | | | | | 1 | 1 | 0 | | 1 | 1 | 1 | | 0 | 0 | 0 | | | | | | | 0 | 0 | 0 | | 1 | 1 | 1 | | 0 | 0 | 0 |
| 结 果 | 21 | | | | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | | | | | | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 |
| | 22 | | | | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | | | | | | 1 | 1 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| | 23 | | | | | | 1 | 1 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | | | | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| | 24 | | | | | | 1 | 0 | 0 | | 1 | 0 | 0 | | 0 | 0 | 0 | | | | | | | 0 | 0 | 0 | | 1 | 0 | 0 | | 0 | 0 | 0 |
| | 25 | | | | | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 0 | 0 | | | | | | | 0 | 0 | 0 | | 0 | 1 | 0 | | 0 | 0 | 0 |
| 测试用例 | | | | | | | Y | Y | Y | | Y | Y | Y | | Y | Y | | | | | | | | Y | Y | Y | | Y | Y | Y | | Y | Y | |

解答

第 6 列:

(1) 输入条件的自然语义陈述;

输入 11010, 表示 C1 售货机可找零、C2 投入 1 元硬币、C4 按下橙汁按钮。

(2) 输出结果的自然语义陈述;

输出 00110, 表示 E23 退还 5 角硬币、E24 送出橙汁饮料

(3) 用命题逻辑形式描述实现上述输入-输出过程所应用的判定规则, 并写出获得输出结果的推理演算过程。

$$C1 \cap T11 \Rightarrow T13$$

$$C2 \cap T12 \Rightarrow T11$$

$$C4 \cup C5 \Rightarrow T12$$

$$C3 \cup T13 \Rightarrow T14$$

$$C4 \cap T14 \Rightarrow E24$$

$$T13 \Rightarrow E23$$

第 23 列

(1) 输入条件的自然语义陈述;

输入 01001, 表示 C2 投入一元硬币、C5 按下啤酒按钮

(2) 输出结果的自然语义陈述;

输出 11000, 表示 E21 售货机零钱找完灯亮、E22 退还 1 元硬币

(3) 用命题逻辑形式描述实现上述输入-输出过程所应用的判定规则, 并写出获得输出结果的推理演算过程。

$$C2 \cap T12 \Rightarrow T11$$

$$C4 \cup C5 \Rightarrow T12$$

$$\neg C1 \cap T11 \Rightarrow E22$$

$$\neg C1 \Rightarrow E21$$