N
matrix (level 0) in KD

• $\mathcal{D} = \{\mathbf{t}_2, \mathbf{t}, \mathbf{T}\}$

Subformulas

- (φ_0) p
- $(\varphi_1) \square p$
- $(\varphi_2) \Diamond p$ $(\varphi_3) (\Box p \rightarrow \Diamond p)$

| Id | $arphi_0$ | $arphi_1$ | $arphi_2$ | $arphi_3$ |
|------|-----------|----------------|------------------|----------------|
| (1) | ${f F}$ | \mathbf{f}_2 | \mathbf{f}_2 | ${f T}$ |
| (2) | ${f F}$ | \mathbf{f}_2 | ${f f}$ | ${f t}$ |
| (3) | ${f F}$ | \mathbf{f}_2 | ${f F}$ | \mathbf{t}_2 |
| (4) | ${f F}$ | ${f f}$ | \mathbf{f}_2 | ${f T}$ |
| (5) | ${f F}$ | ${f f}$ | \mathbf{f} | ${f T}$ |
| (6) | ${f F}$ | ${f f}$ | ${f f}$ | ${f t}$ |
| (7) | ${f F}$ | ${f f}$ | ${f F}$ | ${f t}$ |
| (8) | ${f F}$ | ${f F}$ | \mathbf{f}_2 | ${f T}$ |
| (9) | ${f F}$ | ${f F}$ | ${f f}$ | ${f T}$ |
| (10) | ${f F}$ | ${f F}$ | ${f F}$ | ${f T}$ |
| (11) | ${f f}$ | \mathbf{f}_2 | \mathbf{t}_2 | \mathbf{t}_2 |
| (12) | ${f f}$ | \mathbf{f}_2 | ${f t}$ | ${f t}$ |
| (13) | ${f f}$ | \mathbf{f}_2 | ${f T}$ | ${f T}$ |
| (14) | ${f f}$ | ${f f}$ | \mathbf{t}_2 | ${f t}$ |
| (15) | ${f f}$ | ${f f}$ | ${f t}$ | ${f T}$ |
| (16) | ${f f}$ | ${f f}$ | ${f t}$ | ${f t}$ |
| (17) | ${f f}$ | ${f f}$ | ${f T}$ | ${f T}$ |
| (18) | ${f f}$ | ${f F}$ | \mathbf{t}_2 | ${f T}$ |
| (19) | ${f f}$ | ${f F}$ | $ar{\mathbf{t}}$ | ${f T}$ |

| Id | $arphi_0$ | $arphi_1$ | $arphi_2$ | φ_3 |
|------|----------------|----------------|----------------|----------------------|
| (20) | f | \mathbf{F} | ${f T}$ | $oldsymbol{	ext{T}}$ |
| (21) | \mathbf{f}_2 | \mathbf{t}_2 | \mathbf{t}_2 | ${f T}$ |
| (22) | \mathbf{f}_2 | \mathbf{t}_2 | ${f t}$ | ${f T}$ |
| (23) | \mathbf{f}_2 | \mathbf{t}_2 | ${f T}$ | ${f T}$ |
| (24) | \mathbf{f}_2 | \mathbf{t} | \mathbf{t}_2 | ${f t}$ |
| (25) | \mathbf{f}_2 | \mathbf{t} | \mathbf{t} | ${f T}$ |
| (26) | \mathbf{f}_2 | \mathbf{t} | \mathbf{t} | ${f t}$ |
| (27) | \mathbf{f}_2 | \mathbf{t} | ${f T}$ | ${f T}$ |
| (28) | \mathbf{f}_2 | ${f T}$ | \mathbf{t}_2 | \mathbf{t}_2 |
| (29) | \mathbf{f}_2 | ${f T}$ | \mathbf{t} | ${f t}$ |
| (30) | \mathbf{f}_2 | ${f T}$ | ${f T}$ | ${f T}$ |
| (31) | \mathbf{t}_2 | \mathbf{f}_2 | \mathbf{f}_2 | ${f T}$ |
| (32) | \mathbf{t}_2 | \mathbf{f}_2 | ${f f}$ | ${f t}$ |
| (33) | \mathbf{t}_2 | \mathbf{f}_2 | ${f F}$ | \mathbf{t}_2 |
| (34) | \mathbf{t}_2 | ${f f}$ | \mathbf{f}_2 | ${f T}$ |
| (35) | \mathbf{t}_2 | ${f f}$ | ${f f}$ | ${f T}$ |
| (36) | \mathbf{t}_2 | ${f f}$ | ${f f}$ | ${f t}$ |
| (37) | \mathbf{t}_2 | ${f f}$ | ${f F}$ | \mathbf{t} |
| (38) | \mathbf{t}_2 | ${f F}$ | \mathbf{f}_2 | ${f T}$ |
| (39) | \mathbf{t}_2 | ${f F}$ | ${f f}$ | ${f T}$ |
| (40) | \mathbf{t}_2 | ${f F}$ | ${f F}$ | ${f T}$ |
| (41) | ${f t}$ | \mathbf{f}_2 | \mathbf{t}_2 | \mathbf{t}_2 |
| (42) | ${f t}$ | \mathbf{f}_2 | ${f t}$ | ${f t}$ |
| (43) | ${f t}$ | \mathbf{f}_2 | ${f T}$ | ${f T}$ |
| (44) | ${f t}$ | ${f f}$ | \mathbf{t}_2 | \mathbf{t} |
| (45) | ${f t}$ | ${f f}$ | ${f t}$ | ${f T}$ |
| (46) | ${f t}$ | ${f f}$ | ${f t}$ | ${f t}$ |
| (47) | ${f t}$ | ${f f}$ | ${f T}$ | ${f T}$ |
| (48) | ${f t}$ | ${f F}$ | \mathbf{t}_2 | ${f T}$ |
| (49) | ${f t}$ | ${f F}$ | ${f t}$ | ${f T}$ |

| Id | $arphi_0$ | $arphi_1$ | $arphi_2$ | φ_3 |
|------|--------------|----------------|----------------|----------------|
| (50) | \mathbf{t} | ${f F}$ | ${f T}$ | ${f T}$ |
| (51) | ${f T}$ | \mathbf{t}_2 | \mathbf{t}_2 | ${f T}$ |
| (52) | ${f T}$ | \mathbf{t}_2 | ${f t}$ | ${f T}$ |
| (53) | ${f T}$ | \mathbf{t}_2 | ${f T}$ | ${f T}$ |
| (54) | ${f T}$ | ${f t}$ | \mathbf{t}_2 | ${f t}$ |
| (55) | ${f T}$ | ${f t}$ | ${f t}$ | ${f T}$ |
| (56) | ${f T}$ | ${f t}$ | ${f t}$ | ${f t}$ |
| (57) | ${f T}$ | ${f t}$ | ${f T}$ | ${f T}$ |
| (58) | ${f T}$ | ${f T}$ | \mathbf{t}_2 | \mathbf{t}_2 |
| (59) | ${f T}$ | ${f T}$ | ${f t}$ | ${f t}$ |
| (60) | ${f T}$ | ${f T}$ | ${f T}$ | ${f T}$ |