

True

$$\begin{aligned}
 (t \wedge b \wedge d) &\leftrightarrow (t \wedge b \wedge d) \\
 (t \wedge ((b \wedge d) \vee n)) &\leftrightarrow (t \wedge b \wedge d) \\
 (t \wedge ((b \wedge d) \vee (d \wedge d))) &\leftrightarrow (t \wedge b \wedge d) \\
 (t \wedge (d \wedge (b \vee d))) &\leftrightarrow (t \wedge b \wedge d) \\
 (((t \wedge d) \wedge (b \vee d)) &\leftrightarrow ((t \wedge b) \wedge d)) \\
 (((t \wedge d) \wedge (b \wedge d)) &\leftrightarrow ((t \wedge b) \wedge d)) \\
 (((t \wedge d) \wedge (b \wedge d)) &\leftrightarrow ((t \wedge b) \wedge d)) \\
 (((t \wedge d) \wedge (b \wedge d)) &\leftrightarrow ((t \wedge b) \wedge d))
 \end{aligned}$$

True

$t \wedge b \wedge d$

$b \wedge d \wedge d$

$d \wedge (b \wedge d)$

$d \wedge (b \vee d)$

$(d \wedge (b \vee d))$

True

$$((t \vee d) \wedge (b \vee d)) \leftrightarrow ((t \vee d) \wedge (b \vee d))$$

$$((t \vee d) \wedge (b \vee d)) \leftrightarrow ((t \vee d) \wedge (b \vee d))$$

$$(t \vee d) \wedge (b \vee d) \leftrightarrow (t \vee d) \wedge (b \vee d)$$

$$((t \vee d) \wedge (b \vee d)) \leftrightarrow ((t \vee d) \wedge (b \vee d))$$

$(t \vee d) \wedge (b \vee d)$

$(t \vee d) \wedge (b \vee d)$