

# t13\_margrel1 (TMWrRWmxgsQCs- DEw71co7tEt5EJpPj7HooN)

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Let  $v1\_xboolean : \iota \Rightarrow o$  be given. Let  $k4\_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_margrel1 : \iota$  be given. Let  $k8\_margrel1 : \iota$  be given. Let  $k1\_xboolean : \iota$  be given. Let  $k2\_xboolean : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xboolean X0) \Rightarrow (\forall X1.(v1\_xboolean X1) \Rightarrow (( \\ & (k4\_xboolean X0 X1 = k8\_margrel1) \Rightarrow ((X0 = k8\_margrel1) \wedge (X1 = k8\_margrel1))) \wedge \\ & (((X0 = k8\_margrel1) \wedge (X1 = k8\_margrel1)) \Rightarrow (k4\_xboolean X0 X1 = \\ & k8\_margrel1)) \wedge (\neg(k4\_xboolean X0 X1 = k7\_margrel1) \wedge ((X0 \neq k7\_margrel1) \wedge \\ & (X1 \neq k7\_margrel1))) \wedge (((X0 = k7\_margrel1) \vee (X1 = k7\_margrel1)) \Rightarrow \\ & (k4\_xboolean X0 X1 = k7\_margrel1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xboolean X0) \Leftrightarrow ((X0 = k1\_xboolean) \vee (X0 = k2\_xboolean)) \tag{3}$$

## **Theorem 1**

$$\forall X0.(v1\_xboolean X0) \Rightarrow (k4\_xboolean k7\_margrel1 X0 = k7\_margrel1)$$