# t11_margrel1 (TMJZu8Ro4H9ZwWHnDBkM8g68DtsTxzMbyHg)

October 27, 2020

Let $v1\_xboolean : \iota \Rightarrow o$ be given. Let $k7\_margrel1 : \iota$ be given. Let $k3\_xboolean : \iota \Rightarrow \iota$ be given. Let $k8\_margrel1 : \iota$ be given. Let $k6\_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboolean : \iota$ be given. Let $k2\_xboolean : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k3\_xboolean\ (k6\_xboolean\ X0\ X0) = k1\_xboolean) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k6\_xboolean\ (k6\_xboolean\ k2\_xboolean\ X0)\ X0 = k2\_xboolean) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k6\_xboolean\ X0\ X0 = k2\_xboolean) \tag{3}$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \tag{4}$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k3\_xboolean\ (k3\_xboolean\ X0) = X0) \tag{6}$$

Assume the following.

$$v1\_xboolean\ k2\_xboolean \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (v1\_xboolean\ (k3\_xboolean\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Leftrightarrow ((X0 = k1\_xboolean) \vee (X0 = k2\_xboolean)) \tag{9}$$

**Theorem 1**

$$\forall X0.(v1\_xboolean\ X0)\Rightarrow(((X0 = k7\_margrel1)\Rightarrow(k3\_xboolean\ X0 = k8\_margrel1))\wedge(((k3\_xboolean\ X0 = k8\_margrel1)\Rightarrow(X0 = k7\_margrel1))\wedge(((X0 = k8\_margrel1)\Rightarrow(k3\_xboolean\ X0 = k7\_margrel1))\wedge((k3\_xboolean\ X0 = k7\_margrel1)\Rightarrow(X0 = k8\_margrel1)))))$$