

t7\_mesfunc5 (TMSo-  
JqmjHz13eHJE7WNWhbTvGKQsYUB73KA)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k4\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_extreal1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X2 k6\_numbers)) \Rightarrow \\ & (r1\_xxreal\_0 (k4\_xxreal\_3 X1 X2) (k4\_xxreal\_3 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k7\_numbers) \wedge (m1\_subset\_1 X1 k7\_numbers)) \Rightarrow (k1\_extreal1 X0 X1 = k4\_xxreal\_3 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k7\_numbers) \wedge (m1\_subset\_1 X1 k7\_numbers)) \Rightarrow (m1\_subset\_1 (k1\_extreal1 X0 X1) k7\_numbers) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & (r1\_xxreal\_0 X0 X1) \Rightarrow (k3\_xxreal\_0 X0 X1 = X0)) \wedge ((\neg r1\_xxreal\_0 X0 \\ & X1) \Rightarrow (k3\_xxreal\_0 X0 X1 = X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & (r1\_xxreal\_0 X1 X0) \Rightarrow (k4\_xxreal\_0 X0 X1 = X0)) \wedge ((\neg r1\_xxreal\_0 X1 \\ & X0) \Rightarrow (k4\_xxreal\_0 X0 X1 = X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0)\wedge(v1\_xxreal\_0 X1))\Rightarrow(k4\_xxreal\_3 X0 X1 = k4\_xxreal\_3 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0)\wedge(v1\_xxreal\_0 X1))\Rightarrow(k4\_xxreal\_0 X0 X1 = k4\_xxreal\_0 X1 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0)\wedge(v1\_xxreal\_0 X1))\Rightarrow(k3\_xxreal\_0 X0 X1 = k3\_xxreal\_0 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers)\Rightarrow(v1\_xxreal\_0 X0) \quad (10)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1 X1 k7\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1 X2 k7\_numbers)\Rightarrow((r1\_xxreal\_0 X2 k6\_numbers)\Rightarrow((k4\_xxreal\_3 X2 (k3\_xxreal\_0 X0 X1) = k4\_xxreal\_0 (k1\_extreal1 X2 X0) (k1\_extreal1 X2 X1))\wedge(k4\_xxreal\_3 X2 (k4\_xxreal\_0 X0 X1) = k3\_xxreal\_0 (k1\_extreal1 X2 X0) (k1\_extreal1 X2 X1))))))$$