

t5_real

(TMHXPEJsS4eox2UB8p2E7hbh2dCYmS7qQar)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(r1_xxreal_0 X0 X1) \wedge (\neg v3_xxreal_0 X0) \wedge (v3_xxreal_0 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_xreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \Rightarrow ((v1_xreal_0 X0) \wedge (v2_xxreal_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (3)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee ((v3_xxreal_0 X0) \vee (v2_xxreal_0 X1)))))$$