

t337\_xxreal\_1

(TMYG6vce5AbuXbkNCpiQV56kb7QdR5gxXjG)

October 27, 2020

Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $k3\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow (\forall X3.(v1\_xxreal\_0 X3) \Rightarrow (\neg(\neg r1\_xxreal\_0 \\ & X1 X0) \wedge ((\neg r1\_xxreal\_0 X3 X2) \wedge (k6\_subset\_1 (k4\_xxreal\_1 X0 X3) \\ & (k3\_xxreal\_1 X2 X1) \neq k2\_xboole\_0 (k3\_xxreal\_1 X0 X2) (k4\_xxreal\_1 \\ & X1 X3)))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\neg(X0 \in k1\_numbers) \wedge (r1\_xxreal\_0 X0 k2\_xxreal\_0)) \tag{2}$$

Assume the following.

$$v1\_xxreal\_0 k2\_xxreal\_0 \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Leftrightarrow (X0 \in k1\_numbers) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \tag{5}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xreal\_0 X2) \Rightarrow ((\neg r1\_xxreal\_0 X1 X0) \Rightarrow (k6\_subset\_1 (k4\_xxreal\_1 \\ & k2\_xxreal\_0 X1) (k3\_xxreal\_1 X0 X2) = k2\_xboole\_0 (k3\_xxreal\_1 \\ & k2\_xxreal\_0 X0) (k4\_xxreal\_1 X2 X1)))))) \end{aligned}$$