

## t34\_zfrefle1

(TMPYbB2wrCoyC3C7RCyL8bE6PuyYDuYkutZ)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_classes2 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k4\_classes1 : \iota \Rightarrow \iota$  be given. Let  $r3\_zfrefle1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_ordinal1 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_ordinal2 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal2 : \iota \Rightarrow o$  be given. Let  $k4\_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v3\_ordinal1 X0) \Rightarrow (\forall X1. (v3\_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (k4\_classes1 X0 \in k4\_classes1 X1))) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1\_xboole\_0 X0) \wedge (v1\_classes2 X0)) \Rightarrow (\neg(k4\_ordinal1 \in X0) \wedge (\forall X1. ((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 (k2\_ordinal1 X0) (k2\_ordinal1 X0)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_ordinal1 X0) (k2\_ordinal1 X0)))))) \Rightarrow (\neg(v2\_ordinal2 X1) \wedge (v3\_ordinal2 X1) \wedge (\forall X2. ((v3\_ordinal1 X2) \wedge (m1\_subset\_1 X2 X0)) \Rightarrow (\forall X3. (\neg v1\_xboole\_0 X3) \Rightarrow (((k4\_ordinal4 X0 X1 X2 = X2) \wedge (X3 = k4\_classes1 X2)) \Rightarrow ((k1\_xboole\_0 = X2) \vee (r3\_zfrefle1 X3 X0)))))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge (v1\_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v3\_ordinal1 X1) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (\forall X2.((v1\_funct\_1 \\ & X2) \wedge ((v1\_funct\_2 X2 (k2\_ordinal1 X0) (k2\_ordinal1 X0)) \wedge (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_ordinal1 X0) (k2\_ordinal1 X0)))))) \Rightarrow \\ & (\neg(k4\_ordinal1 \in X0) \wedge ((v2\_ordinal2 X2) \wedge ((v3\_ordinal2 X2) \wedge (\forall X3. \\ & ((v3\_ordinal1 X3) \wedge (m1\_subset\_1 X3 X0)) \Rightarrow (\neg(X1 \in X3) \wedge (k4\_ordinal4 \\ & X0 X2 X3 = X3)))))))))) \end{aligned} \tag{4}$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \tag{5}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge (v1\_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v3\_ordinal1 X1) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (\neg(k4\_ordinal1 \in X0) \wedge \\ & (\forall X2.((v3\_ordinal1 X2) \wedge (m1\_subset\_1 X2 X0)) \Rightarrow (\forall X3. \\ & (\neg v1\_xboole\_0 X3) \Rightarrow (\neg(X1 \in X2) \wedge ((X3 = k4\_classes1 X2) \wedge (r3\_zrefle1 \\ & X3 X0)))))))))) \end{aligned}$$