

# t20\_abc Miz\_0 (TMUcvcFBmKYRsRMUiUE- WHvhBKWREGDB8MDd)

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Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $v1\_abc Miz_0 : \iota \Rightarrow o$  be given. Let  $v9\_abc Miz_0 : \iota \Rightarrow o$  be given. Let  $l2\_abc Miz_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_abc Miz_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_abc Miz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_abc Miz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v12\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finsub\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_abc Miz_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_abc Miz_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge (v1\_abc Miz_0 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\ & (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge ((v1\_waybel\_0 X1 X0) \wedge ((v12\_waybel\_0 \\ & X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \Rightarrow (( \\ & r1\_yellow\_0 X0 X1) \wedge (k1\_yellow\_0 X0 X1 \in X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge (v9\_abc Miz_0 X0) \wedge (l2\_abc Miz_0 X0)))))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 X1 (u1\_abc Miz_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_abc Miz_0 X0 X2 X1) \Rightarrow ((\neg v1\_xboole\_0 ( \\ & k3\_finsub\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) (k3\_abc Miz_0 X0 X1) \\ & (k5\_waybel\_0 X0 X2))) \wedge ((v1\_waybel\_0 (k3\_finsub\_1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0)) (k3\_abc Miz_0 X0 X1) (k5\_waybel\_0 X0 X2)) X0) \wedge \\ & ((v12\_waybel\_0 (k3\_finsub\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) ( \\ & k3\_abc Miz_0 X0 X1) (k5\_waybel\_0 X0 X2)) X0) \wedge (m1\_subset\_1 (k3\_finsub\_1 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0)) (k3\_abc Miz_0 X0 X1) (k5\_waybel\_0 \\ & X0 X2)) (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ (u1\_struct\_0 X0)) \Rightarrow ((X2 \in k5\_waybel\_0 X0 X1) \Leftrightarrow (r1\_orders\_2 X0 X2 \\ X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge (v3\_orders\_2 \\ X0) \wedge (l1\_orders\_2 X0)) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\ m1\_subset\_1 X2 (u1\_struct\_0 X0))) \Rightarrow ((r3\_orders\_2 X0 X1 X2) \Leftrightarrow (r1\_orders\_2 \\ X0 X1 X2)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v1\_xboole\_0 X0) \wedge (v4\_finsub\_1 \\ X0)) \wedge ((m1\_subset\_1 X1 X0) \wedge (m1\_subset\_1 X2 X0))) \Rightarrow (k3\_finsub\_1 \\ X0 X1 X2 = k3\_xboole\_0 X1 X2) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0 (k1\_zfmisc\_1 X0) \quad (6)$$

Assume the following.

$$\forall X0.v4\_finsub\_1 (k1\_zfmisc\_1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(l2\_abcmiz\_0 X0) \Rightarrow ((l1\_orders\_2 X0) \wedge (l1\_abcmiz\_0 X0)) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \wedge \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 (k5\_waybel\_0 \\ X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge (v3\_orders\_2 \\ X0) \wedge (v4\_orders\_2 X0) \wedge (l2\_abcmiz\_0 X0))) \wedge ((m1\_subset\_1 X1 \\ (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_abcmiz\_0 X0))) \Rightarrow (m1\_subset\_1 \\ (k5\_abcmiz\_0 X0 X1 X2) (u1\_struct\_0 X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((l2\_abcmiz\_0 X0) \wedge (m1\_subset\_1 X1 (u1\_abcmiz\_0 \\ X0))) \Rightarrow (m1\_subset\_1 (k3\_abcmiz\_0 X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k3\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\ X0) \wedge (l2\_abcmiz\_0 X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_abcmiz\_0 X0)) \Rightarrow (k5\_abcmiz\_0 \\ X0 X1 X2 = k1\_yellow\_0 X0 (k3\_finsub\_1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0)) (k3\_abcmiz\_0 X0 X2) (k5\_waybel\_0 X0 X1)))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow ((v1\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (14)$$

**Theorem 1**

$$\begin{aligned} \forall X0. ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_lattice3 X0) \wedge ((v1\_abcmiz\_0 X0) \wedge ((v9\_abcmiz\_0 X0) \wedge \\ (l2\_abcmiz\_0 X0)))))))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_abcmiz\_0 X0)) \Rightarrow ((r1\_abcmiz\_0 \\ X0 X1 X2) \Rightarrow (r3\_orders\_2 X0 (k5\_abcmiz\_0 X0 X1 X2) X1)))) \end{aligned}$$