

# t4\_waybel12 (TMGmcQtfvdaNjj- SYLm9TRRvSjGDwwn1cPFv)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r2\_yellow\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v4\_orders\_2 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 \\ & (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow \\ & (((r1\_orders\_2 X0 X1 X2) \wedge (r1\_orders\_2 X0 X2 X3)) \Rightarrow (r1\_orders\_2 \\ & X0 X1 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_orders\_2 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k4\_waybel\_0 X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1\_orders\_2 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow ((r2\_yellow\_4 X0 X1 X2) \Leftrightarrow (\forall X3. (m1\_subset\_1 X3 \\ & (u1\_struct\_0 X0)) \Rightarrow (\neg(X3 \in X2) \wedge (\forall X4. (m1\_subset\_1 X4 ( \\ & u1\_struct\_0 X0)) \Rightarrow (\neg(X4 \in X1) \wedge (r1\_orders\_2 X0 X4 X3)))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& \quad (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\
& \quad (u1\_struct\_0 X0))) \Rightarrow ((X2 = k4\_waybel\_0 X0 X1) \Leftrightarrow (\forall X3.(m1\_subset\_1 \\
& \quad X3 (u1\_struct\_0 X0) \Rightarrow ((X3 \in X2) \Leftrightarrow (\exists X4.(m1\_subset\_1 X4 (u1\_struct\_0 \\
& \quad X0)) \wedge ((r1\_orders\_2 X0 X4 X3) \wedge (X4 \in X1))))))))))
\end{aligned} \tag{6}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v4\_orders\_2 X0) \wedge (l1\_orders\_2 \\
& \quad X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\
& \quad X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 \\
& \quad X0))) \Rightarrow ((r2\_yellow\_4 X0 X2 X1) \Rightarrow (r1\_tarski (k4\_waybel\_0 X0 X1) ( \\
& \quad k4\_waybel\_0 X0 X2))))))
\end{aligned}$$