

## t35\_waybel34

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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  $v2\_lattice3 : \iota \Rightarrow o$  be given. Let  $v3\_lattice3 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  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  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v7\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v18\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_yellow\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v17\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_waybel34 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_waybel34 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  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  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v7\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_orders\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k5\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_struct\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
 & X0) \wedge ((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1. ((v1\_funct\_1 \\
 & X1) \wedge ((v1\_funct\_2 X1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\
 & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \Rightarrow \\
 & ((v7\_waybel\_1 X1 X0) \Rightarrow ((v18\_waybel\_0 (k2\_waybel\_1 X0 X0 X1) X0 ( \\
 & k1\_yellow\_2 X0 X0 X1)) \wedge (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\
 & (u1\_struct\_0 X0)) \Rightarrow (((r1\_tarski X2 (u1\_struct\_0 (k1\_yellow\_2 \\
 & X0 X0 X1))) \wedge (r1\_yellow\_0 X0 X2)) \Rightarrow ((r1\_yellow\_0 (k1\_yellow\_2 X0 \\
 & X0 X1) X2) \wedge (k1\_yellow\_0 (k1\_yellow\_2 X0 X0 X1) X2 = k3\_funct\_2 (u1\_struct\_0 \\
 & X0) (u1\_struct\_0 X0) X1 (k1\_yellow\_0 X0 X2))))))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\ & X0) \wedge ((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.((v1\_funct\_1 \\ & X1) \wedge ((v1\_funct\_2 X1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \Rightarrow \\ & ((v7\_waybel\_1 X1 X0) \Rightarrow (v3\_waybel\_1 (k1\_waybel\_1 (k1\_yellow\_2 \\ & X0 X0 X1) X0 (k3\_waybel\_1 X0 X0 X1) (k2\_waybel\_1 X0 X0 X1) (k1\_yellow\_2 \\ & X0 X0 X1) X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v4\_yellow\_0 \\ & X1 X0) \wedge ((v7\_yellow\_0 X1 X0) \wedge (m1\_yellow\_0 X1 X0)))) \Rightarrow ((v3\_orders\_2 \\ & X1) \wedge ((v4\_orders\_2 X1) \wedge ((v5\_orders\_2 X1) \wedge ((v1\_lattice3 X1) \wedge \\ & ((v2\_lattice3 X1) \wedge ((v3\_lattice3 X1) \wedge (l1\_orders\_2 X1)))))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 \\ & X1) \wedge ((v5\_orders\_2 X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge \\ & ((v3\_lattice3 X1) \wedge (l1\_orders\_2 X1))))))) \Rightarrow (\forall X2.((v1\_funct\_1 \\ & X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge ((v18\_waybel\_0 \\ & X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 X1)))))) \Rightarrow (r2\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 \\ & X1) (k1\_waybel34 X1 X0 (k2\_waybel34 X1 X0 X2)) X2))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 \\ & X1) \wedge ((v5\_orders\_2 X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge \\ & ((v3\_lattice3 X1) \wedge (l1\_orders\_2 X1))))))) \Rightarrow (\forall X2.((v1\_funct\_1 \\ & X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge ((v17\_waybel\_0 \\ & X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 X1)))))) \Rightarrow (r2\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 \\ & X1) (k2\_waybel34 X0 X1 (k1\_waybel34 X0 X1 X2)) X2))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
& X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\
& (\forall X1.((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 X1) \wedge ((v5\_orders\_2 \\
& X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge (l1\_orders\_2 X1)))))) \Rightarrow \\
& (((v3\_lattice3 X0) \wedge (v3\_lattice3 X1)) \Rightarrow (\forall X2.((v1\_funct\_1 \\
& X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& ((v18\_waybel\_0 X2 X0 X1) \Rightarrow ((v5\_orders\_3 (k2\_waybel34 X1 X0 X2) X1 \\
& X0) \wedge ((v4\_waybel\_1 (k2\_waybel34 X1 X0 X2) X1 X0) \wedge (v17\_waybel\_0 \\
& (k2\_waybel34 X1 X0 X2) X1 X0))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge \\
& ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)))) \wedge ( \\
& (v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 (u1\_struct\_0 X0) (u1\_struct\_0 \\
& X0)) \wedge ((v7\_waybel\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \Rightarrow ((v1\_orders\_2 (k1\_yellow\_2 \\
& X0 X0 X1)) \wedge ((v4\_yellow\_0 (k1\_yellow\_2 X0 X0 X1) X0) \wedge (v7\_yellow\_0 \\
& (k1\_yellow\_2 X0 X0 X1) X0)))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 \\
& X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \wedge ((v1\_funct\_1 X2) \wedge \\
& ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& ((v1\_funct\_1 (k3\_waybel\_1 X0 X1 X2)) \wedge ((v2\_funct\_1 (k3\_waybel\_1 \\
& X0 X1 X2)) \wedge ((v1\_funct\_2 (k3\_waybel\_1 X0 X1 X2) (u1\_struct\_0 (k1\_yellow\_2 \\
& X0 X1 X2)) (u1\_struct\_0 X1)) \wedge (v5\_orders\_3 (k3\_waybel\_1 X0 X1 X2) \\
& (k1\_yellow\_2 X0 X1 X2) X1))))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 \\
& X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \wedge ((v1\_funct\_1 X2) \wedge \\
& ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& ((\neg v2\_struct\_0 (k1\_yellow\_2 X0 X1 X2)) \wedge ((v1\_orders\_2 (k1\_yellow\_2 \\
& X0 X1 X2)) \wedge (v4\_yellow\_0 (k1\_yellow\_2 X0 X1 X2) X1)))
\end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
& X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\
& ((v3\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \wedge (((v3\_orders\_2 X1) \wedge \\
& ((v4\_orders\_2 X1) \wedge ((v5\_orders\_2 X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 \\
& X1) \wedge ((v3\_lattice3 X1) \wedge (l1\_orders\_2 X1)))))) \wedge ((v1\_funct\_1 \\
& X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X1) (u1\_struct\_0 X0)) \wedge ((v18\_waybel\_0 \\
& X2 X1 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\
& X1) (u1\_struct\_0 X0)))))) \Rightarrow ((v1\_funct\_1 (k2\_waybel34 X0 X1 \\
& X2)) \wedge ((v1\_funct\_2 (k2\_waybel34 X0 X1 X2) (u1\_struct\_0 X0) (u1\_struct\_0 \\
& X1)) \wedge (v4\_waybel\_1 (k2\_waybel34 X0 X1 X2) X0 X1)))
\end{aligned} \tag{10}$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (\forall X1. (m1\_yellow\_0 X1 X0) \Rightarrow (l1\_orders\_2 X1)) \tag{11}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 \\
& X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \wedge ((v1\_funct\_1 X2) \wedge \\
& ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& ((v1\_funct\_1 (k3\_waybel\_1 X0 X1 X2)) \wedge ((v1\_funct\_2 (k3\_waybel\_1 \\
& X0 X1 X2) (u1\_struct\_0 (k1\_yellow\_2 X0 X1 X2)) (u1\_struct\_0 X1)) \wedge \\
& (m1\_subset\_1 (k3\_waybel\_1 X0 X1 X2) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (u1\_struct\_0 (k1\_yellow\_2 X0 X1 X2)) (u1\_struct\_0 X1))))))
\end{aligned} \tag{12}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 \\
& X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \wedge ((v1\_funct\_1 X2) \wedge \\
& ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& ((v1\_funct\_1 (k2\_waybel\_1 X0 X1 X2)) \wedge ((v1\_funct\_2 (k2\_waybel\_1 \\
& X0 X1 X2) (u1\_struct\_0 X0) (u1\_struct\_0 (k1\_yellow\_2 X0 X1 X2))) \wedge \\
& (m1\_subset\_1 (k2\_waybel\_1 X0 X1 X2) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (u1\_struct\_0 X0) (u1\_struct\_0 (k1\_yellow\_2 X0 X1 X2))))))
\end{aligned} \tag{13}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
& X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\
& (l1\_orders\_2 X0)))))) \wedge (((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 X1) \wedge \\
& ((v5\_orders\_2 X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge (l1\_orders\_2 \\
& X1)))))) \wedge ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X1) ( \\
& u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 ( \\
& u1\_struct\_0 X1) (u1\_struct\_0 X0)))))) \Rightarrow ((v1\_funct\_1 (k2\_waybel34 \\
& X0 X1 X2)) \wedge ((v1\_funct\_2 (k2\_waybel34 X0 X1 X2) (u1\_struct\_0 X0) \\
& (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 (k2\_waybel34 X0 X1 X2) (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1))))))
\end{aligned} \tag{14}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 \\
& X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \wedge ((v1\_funct\_1 X2) \wedge \\
& ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& ((v1\_orders\_2 (k1\_yellow\_2 X0 X1 X2)) \wedge ((v4\_yellow\_0 (k1\_yellow\_2 \\
& X0 X1 X2) X1) \wedge (m1\_yellow\_0 (k1\_yellow\_2 X0 X1 X2) X1)))
\end{aligned} \tag{15}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \Rightarrow (\forall X2. ((v1\_funct\_1 \\
& X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& (k1\_yellow\_2 X0 X1 X2 = k5\_yellow\_0 X1 (k2\_relset\_1 (u1\_struct\_0 \\
& X1) X2)))
\end{aligned} \tag{16}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
& X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\
& (\forall X1. ((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 X1) \wedge ((v5\_orders\_2 \\
& X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge (l1\_orders\_2 X1)))))) \Rightarrow \\
& (\forall X2. ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X1) \\
& (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (u1\_struct\_0 X1) (u1\_struct\_0 X0)))))) \Rightarrow (((v3\_lattice3 X1) \wedge ( \\
& v18\_waybel\_0 X2 X1 X0)) \Rightarrow (\forall X3. ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 \\
& X3 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow ((X3 = k2\_waybel34 \\
& X0 X1 X2) \Leftrightarrow (v3\_waybel\_1 (k1\_waybel\_1 X0 X1 X3 X2) X0 X1))))))
\end{aligned} \tag{17}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
& X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\
& (\forall X1.((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 X1) \wedge ((v5\_orders\_2 \\
& X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge (l1\_orders\_2 X1)))))) \Rightarrow \\
& (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) \\
& (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow (((v3\_lattice3 X0) \wedge \\
& v17\_waybel\_0 X2 X0 X1)) \Rightarrow (\forall X3.((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 \\
& X3 (u1\_struct\_0 X1) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 (u1\_struct\_0 X1) (u1\_struct\_0 X0)))))) \Rightarrow ((X3 = k1\_waybel34 \\
& X0 X1 X2) \Leftrightarrow (v3\_waybel\_1 (k1\_waybel\_1 X0 X1 X2 X3) X0 X1))))))
\end{aligned} \tag{18}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \Rightarrow (\forall X2.((v1\_funct\_1 \\
& X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow \\
& (k3\_waybel\_1 X0 X1 X2 = k3\_struct\_0 (k1\_yellow\_2 X0 X1 X2))))
\end{aligned} \tag{19}$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v1\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \tag{20}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
& X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\
& (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 \\
& X1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge ((v7\_waybel\_1 X1 X0) \wedge (m1\_subset\_1 \\
& X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \Rightarrow \\
& ((v18\_waybel\_0 (k2\_waybel\_1 X0 X0 X1) X0 (k1\_yellow\_2 X0 X0 X1)) \wedge \\
& ((v17\_waybel\_0 (k3\_waybel\_1 X0 X0 X1) (k1\_yellow\_2 X0 X0 X1) X0) \wedge \\
& ((r2\_funct\_2 (u1\_struct\_0 (k1\_yellow\_2 X0 X0 X1)) (u1\_struct\_0 \\
& X0) (k2\_waybel34 (k1\_yellow\_2 X0 X0 X1) X0 (k2\_waybel\_1 X0 X0 X1)) \\
& (k3\_waybel\_1 X0 X0 X1)) \wedge (r2\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 \\
& (k1\_yellow\_2 X0 X0 X1)) (k1\_waybel34 (k1\_yellow\_2 X0 X0 X1) X0 (k3\_waybel\_1 \\
& X0 X0 X1)) (k2\_waybel\_1 X0 X0 X1))))))
\end{aligned}$$