

t28\_aff\_4 (TM-  
MDxJp5brE66EfA8mrLJ3MywXMfAwfL11s)

October 27, 2020

Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_diraf : \iota \Rightarrow o$  be given. Let  $l1\_analoaf : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_aff\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_aff\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r5\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & \quad X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & \quad X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X4.(m1\_subset\_1 \\ & \quad X4 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) \Rightarrow (((v1\_aff\_4 X2 X0) \wedge (X1 \in X2) \wedge \\ & \quad (r1\_tarski X3 X2) \wedge (X1 \in X4)))) \Rightarrow (((\neg r5\_aff\_1 X0 X3 X4) \wedge (\neg r5\_aff\_1 \\ & \quad X0 X4 X3)) \vee (r1\_tarski X4 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf \\ & X0) \wedge (l1\_analoaf X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\ & \quad X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \Rightarrow (m1\_subset\_1 (k2\_aff\_4 \\ & \quad X0 X1 X2) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & \quad X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v1\_aff\_1 X2 X0) \Rightarrow (\forall X3. \\ & \quad (m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X3 = k2\_aff\_4 \\ & \quad X0 X1 X2) \Leftrightarrow ((X1 \in X3) \wedge (r5\_aff\_1 X0 X2 X3)))))) \end{aligned} \tag{3}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & \quad X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (((v1\_aff\_4 X2 X0) \wedge ((v1\_aff\_1 \\ & X3 X0) \wedge ((X1 \in X2) \wedge (r1\_tarski X3 X2)))) \Rightarrow (r1\_tarski (k2\_aff\_4 X0 \\ & \quad X1 X3) X2)))))) \end{aligned}$$