

# t9\_weierstr (TMNWRExzmXuvr- WbFNT5tiyfQxNBr2ek7ao1)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  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  $k3\_topmetr : \iota$  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  $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v2\_pre\_topc X1) \wedge (l1\_pre\_topc \\ & X1))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (((v2\_compts\_1 X3 X0) \wedge (v5\_pre\_topc \\ & X2 X0 X1)) \Rightarrow (v2\_compts\_1 (k7\_relset\_1 (u1\_struct\_0 X0) (u1\_struct\_0 \\ & X1) X2 X3) X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$(\neg v2\_struct\_0 k3\_topmetr) \wedge ((v1\_pre\_topc k3\_topmetr) \wedge (v2\_pre\_topc k3\_topmetr)) \tag{2}$$

Assume the following.

$$(v2\_pre\_topc k3\_topmetr) \wedge (l1\_pre\_topc k3\_topmetr) \tag{3}$$

## Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 k3\_topmetr)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 ( \\ & k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 k3\_topmetr)))))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & (((v2\_compts\_1 X2 X0) \wedge (v5\_pre\_topc X1 X0 k3\_topmetr)) \Rightarrow (v2\_compts\_1 \\ & (k7\_relset\_1 (u1\_struct\_0 X0) (u1\_struct\_0 k3\_topmetr) X1 X2) \\ & k3\_topmetr)))))) \end{aligned}$$