l51_trees_3 (TMVYMUJ-LYxfwvstNh9XgzvwUvphjKDFsxga)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v3\_trees\_2 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ 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 $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow ((r1\_tarski\ (k10\_xtuple\_0\ X1)\ X0) \Rightarrow ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ (k9\_xtuple\_0\ X1)\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k9\_xtuple\_0\ X1)\ X0)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ X1) \Rightarrow ((v5\_relat\_1\ X1\ X0) \Leftrightarrow (r1\_tarski\ (k10\_xtuple\_0\ X1)\ X0)) \tag{2}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v5\_relat\_1\ X1\ X0) \wedge ((v1\_funct\_1\ X1) \wedge (v3\_trees\_2\ X1)))) \Rightarrow ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ (k9\_xtuple\_0\ X1)\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k9\_xtuple\_0\ X1)\ X0)))))))$$