

t3_bvfunc11 (TMd- sNfvGw3wM8WMT4JSJyTd8zvxfRrdnE5r)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_eqrel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_bvfunc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_partit1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_setfam_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1_eqrel_1 X2 X0) \Rightarrow (\forall X3.(m1_eqrel_1 X3 X0) \Rightarrow \\ & ((r1_setfam_1 X2 X3) \Rightarrow (r1_tarski (k15_bvfunc_1 X0 X1 X2) (k15_bvfunc_1 \\ & X0 X1 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_eqrel_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1_eqrel_1 X2 X0) \Rightarrow (r1_setfam_1 (k2_partit1 X0 X1 \\ & X2) X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((m1_eqrel_1 \\ & X1 X0) \wedge (m1_eqrel_1 X2 X0))) \Rightarrow (m1_eqrel_1 (k2_partit1 X0 X1 X2) X0) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1_eqrel_1 X2 X0) \Rightarrow (\forall X3.(m1_eqrel_1 X3 X0) \Rightarrow \\ & (r1_tarski (k15_bvfunc_1 X0 X1 (k2_partit1 X0 X2 X3)) (k15_bvfunc_1 \\ & X0 X1 X2)))))) \end{aligned}$$