

# t2\_bvfunc11 (TMFVMC<sub>y</sub>- diV6vtLxAqDWpM3U6XRPJK5bdQv9)

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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  $k3\_partit1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_eqrel\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1\_eqrel\_1 X2 X0) \Rightarrow (r1\_setfam\_1 X1 (k3\_partit1 X0 \\ & X1 X2)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0) \wedge ((m1\_eqrel\_1 \\ & X1 X0) \wedge (m1\_eqrel\_1 X2 X0))) \Rightarrow (m1\_eqrel\_1 (k3\_partit1 X0 X1 X2) X0) \end{aligned} \tag{3}$$

## Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1\_eqrel\_1 X2 X0) \Rightarrow (\forall X3.(m1\_eqrel\_1 X3 X0) \Rightarrow \\ & (r1\_tarski (k15\_bvfunc\_1 X0 X1 X2) (k15\_bvfunc\_1 X0 X1 (k3\_partit1 \\ & X0 X2 X3)))))) \end{aligned}$$