

# t35\_bciideal (TMYqBm- BK nL4YAKdoLVw3X8EPfZ1vEd6H7cj)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_bciideal : \iota \Rightarrow o$  be given. Let  $v4\_bciideal : \iota \Rightarrow o$  be given. Let  $v5\_bciideal : \iota \Rightarrow o$  be given. Let  $v7\_bciideal : \iota \Rightarrow o$  be given. Let  $v8\_bciideal : \iota \Rightarrow o$  be given. Let  $l2\_bciideal : \iota \Rightarrow o$  be given. Let  $m2\_bciideal : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_bciideal : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_bciideal : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bciideal X0) \wedge ((v4\_bciideal X0) \wedge ((v5\_bciideal X0) \wedge ((v7\_bciideal X0) \wedge ((v8\_bciideal X0) \wedge (l2\_bciideal X0))))))) \Rightarrow (\forall X1.(m2\_bciideal X1 X0) \Rightarrow (\forall X2. \\ & (m2\_bciideal X2 X0) \Rightarrow (((r1\_tarski X1 X2) \wedge ((v3\_bciideal X1 X0) \wedge (m2\_bciideal X1 X0))) \Rightarrow ((v3\_bciideal X2 X0) \wedge (m2\_bciideal X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bciideal X0) \wedge ((v4\_bciideal X0) \wedge ((v5\_bciideal X0) \wedge ((v7\_bciideal X0) \wedge (l2\_bciideal X0)))))) \Rightarrow \\ & (m2\_bciideal (k1\_tarski (k4\_struct\_0 X0)) X0) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bciideal X0) \wedge ((v4\_bciideal X0) \wedge ((v5\_bciideal X0) \wedge ((v7\_bciideal X0) \wedge (l2\_bciideal X0)))))) \Rightarrow \\ & (\forall X1.(m2\_bciideal X1 X0) \Rightarrow ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\
& X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge (l2\_bcialg\_1 X0)))))) \Rightarrow \\
& (\forall X1.((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& (u1\_struct\_0 X0)))) \Rightarrow ((m2\_bcialg\_1 X1 X0) \Leftrightarrow ((k4\_struct\_0 X0 \in X1) \wedge \\
& (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 \\
& X3 (u1\_struct\_0 X0)) \Rightarrow (((k1\_bcialg\_1 X0 X2 X3 \in X1) \wedge (X3 \in X1)) \Rightarrow (X2 \in \\
& X1)))))))
\end{aligned} \tag{6}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\
& X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge ((v8\_bcialg\_1 X0) \wedge \\
& (l2\_bcialg\_1 X0)))))) \Rightarrow ((\forall X1.(m2\_bcialg\_1 X1 X0) \Rightarrow ((v3\_bciideal \\
& X1 X0) \wedge (m2\_bcialg\_1 X1 X0))) \Leftrightarrow ((v3\_bciideal (k1\_tarski (k4\_struct\_0 \\
& X0)) X0) \wedge (m2\_bcialg\_1 (k1\_tarski (k4\_struct\_0 X0)) X0)))
\end{aligned}$$