

# t34\_integra9

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_measure5 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $r1\_integra9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k16\_sin\_cos : \iota$  be given. Let  $k19\_sin\_cos : \iota$  be given. Let  $k2\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k20\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_integra9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\ & X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow ((X0 = k1\_rcomp\_1 k6\_numbers k32\_sin\_cos) \Rightarrow \\ & (k2\_integra5 X0 (k20\_valued\_1 k1\_numbers k1\_numbers k1\_numbers \\ & k16\_sin\_cos k19\_sin\_cos) = k6\_numbers)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & (v1\_funct\_1 k19\_sin\_cos) \wedge ((v1\_funct\_2 k19\_sin\_cos k1\_numbers \\ & k1\_numbers) \wedge (m1\_subset\_1 k19\_sin\_cos (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k1\_numbers k1\_numbers)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & (v1\_funct\_1 k16\_sin\_cos) \wedge ((v1\_funct\_2 k16\_sin\_cos k1\_numbers \\ & k1\_numbers) \wedge (m1\_subset\_1 k16\_sin\_cos (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k1\_numbers k1\_numbers)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\ & X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow \\ & (\forall X2. ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k1\_numbers k1\_numbers)))) \Rightarrow ((r1\_integra9 X0 X1 X2) \Leftrightarrow (k1\_integra9 \\ & X0 X1 X2 = k6\_numbers)))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\
& \quad X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow \\
& (\forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& \quad k1\_numbers k1\_numbers)))) \Rightarrow (k1\_integra9 X0 X1 X2 = k2\_integra5 \\
& \quad X0 (k20\_valued\_1 k1\_numbers k1\_numbers k1\_numbers X1 X2))))
\end{aligned} \tag{5}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\
& \quad X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow ((X0 = k1\_rcomp\_1 k6\_numbers k32\_sin\_cos) \Rightarrow \\
& \quad (r1\_integra9 X0 k16\_sin\_cos k19\_sin\_cos))
\end{aligned}$$