

t24\_twoscomp  
(TMS7CqdwQAdp1ZPUx4y96JXtAnfHgTMHQDw)

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Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k27\_twoscomp : \iota$  be given. Let  $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k26\_twoscomp : \iota$  be given. Let  $k25\_twoscomp : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_margrel1 : \iota$  be given. Let  $k1\_binarith : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_margrel1 : \iota \Rightarrow \iota$  be given. Let  $k28\_twoscomp : \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboolean : \iota \Rightarrow \iota$  be given. Let  $k8\_margrel1 : \iota$  be given. Let  $k2\_xboolean : \iota$  be given. Let  $k7\_margrel1 : \iota$  be given. Let  $k1\_xboolean : \iota$  be given. Let  $v1\_xboolean : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(k11\_finseq\_1 X0 X1 X2 = k7\_finseq\_1 \\ & (k9\_finseq\_1 X0) (k10\_finseq\_1 X1 X2)) \wedge (k11\_finseq\_1 X0 X1 X2 = \\ & k7\_finseq\_1 (k10\_finseq\_1 X0 X1) (k9\_finseq\_1 X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & (k1\_funct\_1 k26\_twoscomp (k11\_finseq\_1 k6\_numbers k6\_numbers \\ & k6\_numbers) = np\_1) \wedge ((k1\_funct\_1 k26\_twoscomp (k11\_finseq\_1 \\ & k6\_numbers k6\_numbers np\_1) = np\_1) \wedge ((k1\_funct\_1 k26\_twoscomp \\ & (k11\_finseq\_1 k6\_numbers np\_1 k6\_numbers) = np\_1) \wedge ((k1\_funct\_1 \\ & k26\_twoscomp (k11\_finseq\_1 k6\_numbers np\_1 np\_1) = np\_1) \wedge \\ & (k1\_funct\_1 k26\_twoscomp (k11\_finseq\_1 np\_1 k6\_numbers k6\_numbers) = \\ & k6\_numbers) \wedge ((k1\_funct\_1 k26\_twoscomp (k11\_finseq\_1 np\_1 k6\_numbers \\ & np\_1) = np\_1) \wedge ((k1\_funct\_1 k26\_twoscomp (k11\_finseq\_1 np\_1 \\ & np\_1 k6\_numbers) = np\_1) \wedge (k1\_funct\_1 k26\_twoscomp (k11\_finseq\_1 \\ & np\_1 np\_1 np\_1) = np\_1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& (k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \ k6\_numbers \ k6\_numbers \\
& k6\_numbers) = k6\_numbers) \wedge ((k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \\
& k6\_numbers \ k6\_numbers \ np\_1) = np\_1) \wedge ((k1\_funct\_1 \ k25\_twoscomp \\
& (k11\_finseq\_1 \ k6\_numbers \ np\_1 \ k6\_numbers) = np\_1) \wedge ((k1\_funct\_1 \\
& k25\_twoscomp \ (k11\_finseq\_1 \ k6\_numbers \ np\_1 \ np\_1) = np\_1) \wedge ( \\
& (k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \ np\_1 \ k6\_numbers \ k6\_numbers) = \\
& np\_1) \wedge ((k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \ np\_1 \ k6\_numbers \\
& np\_1) = np\_1) \wedge ((k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \ np\_1 \\
& np\_1 \ k6\_numbers) = np\_1) \wedge (k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \\
& np\_1 \ np\_1 \ np\_1) = np\_1))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 \ X0 \ k6\_margrel1) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 \ k6\_margrel1) \Rightarrow (\forall X2.(m1\_subset\_1 \ X2 \ k6\_margrel1) \Rightarrow (( \\
& k1\_funct\_1 \ k25\_twoscomp \ (k11\_finseq\_1 \ X0 \ X1 \ X2) = k1\_binarith \ ( \\
& k1\_binarith \ X0 \ X1) \ X2) \wedge ((k1\_funct\_1 \ k26\_twoscomp \ (k11\_finseq\_1 \\
& X0 \ X1 \ X2) = k1\_binarith \ (k1\_binarith \ (k9\_margrel1 \ X0) \ X1) \ X2) \wedge (( \\
& k1\_funct\_1 \ k27\_twoscomp \ (k11\_finseq\_1 \ X0 \ X1 \ X2) = k1\_binarith \ ( \\
& k1\_binarith \ (k9\_margrel1 \ X0) \ (k9\_margrel1 \ X1)) \ X2) \wedge (k1\_funct\_1 \\
& k28\_twoscomp \ (k11\_finseq\_1 \ X0 \ X1 \ X2) = k1\_binarith \ (k1\_binarith \\
& (k9\_margrel1 \ X0) \ (k9\_margrel1 \ X1)) \ (k9\_margrel1 \ X2))))))
\end{aligned} \tag{5}$$

Assume the following.

$$v1\_xboole\_0 \ np\_0 \tag{6}$$

Assume the following.

$$k6\_xcmplx\_0 \ np\_1 \ np\_1 = np\_0 \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k6\_margrel1) \Rightarrow (k9\_margrel1 \ X0 = k3\_xboolean \\
X0) \tag{8}$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \tag{9}$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \tag{10}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{11}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k6\_margrel1) \Rightarrow (k9\_margrel1 (k9\_margrel1 X0) = X0) \quad (12)$$

Assume the following.

$$v1\_xboolean k2\_xboolean \quad (13)$$

Assume the following.

$$m1\_subset\_1 k8\_margrel1 k6\_margrel1 \quad (14)$$

Assume the following.

$$m1\_subset\_1 k7\_margrel1 k6\_margrel1 \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.k10\_finseq\_1 X0 X1 = k7\_finseq\_1 (k9\_finseq\_1 X0) (k9\_finseq\_1 X1) \quad (16)$$

Assume the following.

$$\forall X0.(v1\_xboolean X0) \Rightarrow (k3\_xboolean X0 = k6\_xcmplx\_0 np\_1 X0) \quad (17)$$

Assume the following.

$$k2\_xboolean = np\_1 \quad (18)$$

Assume the following.

$$k1\_xboolean = k6\_numbers \quad (19)$$

### Theorem 1

$$\begin{aligned} & (k1\_funct\_1 k27\_twoscomp (k11\_finseq\_1 k6\_numbers k6\_numbers \\ & k6\_numbers) = np\_1) \wedge ((k1\_funct\_1 k27\_twoscomp (k11\_finseq\_1 \\ & k6\_numbers k6\_numbers np\_1) = np\_1) \wedge ((k1\_funct\_1 k27\_twoscomp \\ & (k11\_finseq\_1 k6\_numbers np\_1 k6\_numbers) = np\_1) \wedge ((k1\_funct\_1 \\ & k27\_twoscomp (k11\_finseq\_1 k6\_numbers np\_1 np\_1) = np\_1) \wedge \\ & (k1\_funct\_1 k27\_twoscomp (k11\_finseq\_1 np\_1 k6\_numbers k6\_numbers) = \\ & np\_1) \wedge ((k1\_funct\_1 k27\_twoscomp (k11\_finseq\_1 np\_1 k6\_numbers \\ & np\_1) = np\_1) \wedge ((k1\_funct\_1 k27\_twoscomp (k11\_finseq\_1 np\_1 \\ & np\_1 k6\_numbers) = k6\_numbers) \wedge (k1\_funct\_1 k27\_twoscomp (k11\_finseq\_1 \\ & np\_1 np\_1 np\_1) = np\_1)))))) \end{aligned}$$