

# t33\_rvsum\_2 (TMQn- qKVUDn6Yq6joHCoqEPVfoxNfmJEWqjX)

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Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k16\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 \\ & X0) \wedge (v1\_valued\_0 X0)))) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 \\ & X1) \wedge ((v1\_finseq\_1 X1) \wedge (v1\_valued\_0 X1)))) \Rightarrow (k16\_rvsum\_1 (k7\_finseq\_1 \\ & X0 X1) = k3\_binop\_2 (k16\_rvsum\_1 X0) (k16\_rvsum\_1 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k16\_rvsum\_1 (k9\_finseq\_1 X0) = X0) \quad (2)$$

Assume the following.

$$\forall X0.k9\_finseq\_1 X0 = k5\_finseq\_1 X0 \quad (3)$$

Assume the following.

$$\forall X0.v1\_finseq\_1 (k5\_finseq\_1 X0) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (v1\_valued\_0 (k5\_finseq\_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 (k9\_finseq\_1 X0)) \wedge (v1\_funct\_1 (k9\_finseq\_1 X0)) \quad (6)$$

## Theorem 1

$$\begin{aligned} & \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (( \\ & v1\_funct\_1 X1) \wedge ((v1\_finseq\_1 X1) \wedge (v1\_valued\_0 X1)))) \Rightarrow (k16\_rvsum\_1 \\ & (k7\_finseq\_1 (k9\_finseq\_1 X0) X1) = k3\_binop\_2 X0 (k16\_rvsum\_1 \\ & X1))) \end{aligned}$$