

## t23\_integra6

(TMVVBY2czBZ387uYig6DTDQGtFJJsKfQsWg)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_integra5 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k18\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\
 & (v1\_xreal\_0 X2) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow (\forall X4.(v1\_xreal\_0 \\
 & X4) \Rightarrow (\forall X5.((v1\_funct\_1 X5) \wedge (m1\_subset\_1 X5 (k1\_zfmisc\_1 \\
 & (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))))) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge \\
 & ((r1\_xxreal\_0 X2 X3) \wedge ((r1\_integra5 (k3\_integra5 X0 X1) X5) \wedge (( \\
 & v1\_comseq\_2 (k2\_partfun1 k1\_numbers k1\_numbers X5 (k3\_integra5 \\
 & X0 X1))) \wedge ((r1\_tarski (k3\_integra5 X0 X1) (k9\_xtuple\_0 X5)) \wedge (( \\
 & X2 \in k3\_integra5 X0 X1) \wedge ((X3 \in k3\_integra5 X0 X1) \wedge (\forall X6.(v1\_xreal\_0 \\
 & X6) \Rightarrow ((X6 \in k3\_integra5 X2 X3) \Rightarrow (r1\_xxreal\_0 (k18\_complex1 (k1\_seq\_1 \\
 & X5 X6)) X4)))))))))) \Rightarrow (r1\_xxreal\_0 (k18\_complex1 (k4\_integra5 \\
 & X3 X2 X5)) (k3\_xcmplx\_0 X4 (k6\_xcmplx\_0 X3 X2)))))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\
& (v1\_xreal\_0 X2) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow (\forall X4.(v1\_xreal\_0 \\
& X4) \Rightarrow (\forall X5.((v1\_funct\_1 X5) \wedge (m1\_subset\_1 X5 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))))) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge \\
& ((r1\_xxreal\_0 X2 X3) \wedge ((r1\_integra5 (k3\_integra5 X0 X1) X5) \wedge (( \\
& v1\_comseq\_2 (k2\_partfun1 k1\_numbers k1\_numbers X5 (k3\_integra5 \\
& X0 X1))) \wedge ((r1\_tarski (k3\_integra5 X0 X1) (k9\_xtuple\_0 X5)) \wedge (( \\
& X2 \in k3\_integra5 X0 X1) \wedge ((X3 \in k3\_integra5 X0 X1) \wedge (\forall X6.(v1\_xreal\_0 \\
& X6) \Rightarrow ((X6 \in k3\_integra5 X2 X3) \Rightarrow (r1\_xxreal\_0 (k18\_complex1 (k1\_seq\_1 \\
& X5 X6) X4)))))))))) \Rightarrow (r1\_xxreal\_0 (k18\_complex1 (k4\_integra5 \\
& X2 X3 X5)) (k3\_xcmplx\_0 X4 (k6\_xcmplx\_0 X3 X2)))))))))
\end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\
& (v1\_xreal\_0 X2) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow (\forall X4.(v1\_xreal\_0 \\
& X4) \Rightarrow (\forall X5.((v1\_funct\_1 X5) \wedge (m1\_subset\_1 X5 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))))) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge \\
& ((r1\_xxreal\_0 X2 X3) \wedge ((r1\_integra5 (k3\_integra5 X0 X1) X5) \wedge (( \\
& v1\_comseq\_2 (k2\_partfun1 k1\_numbers k1\_numbers X5 (k3\_integra5 \\
& X0 X1))) \wedge ((r1\_tarski (k3\_integra5 X0 X1) (k9\_xtuple\_0 X5)) \wedge (( \\
& X2 \in k3\_integra5 X0 X1) \wedge ((X3 \in k3\_integra5 X0 X1) \wedge (\forall X6.(v1\_xreal\_0 \\
& X6) \Rightarrow ((X6 \in k3\_integra5 X2 X3) \Rightarrow (r1\_xxreal\_0 (k18\_complex1 (k1\_seq\_1 \\
& X5 X6) X4)))))))))) \Rightarrow ((r1\_xxreal\_0 (k18\_complex1 (k4\_integra5 \\
& X2 X3 X5)) (k3\_xcmplx\_0 X4 (k6\_xcmplx\_0 X3 X2))) \wedge (r1\_xxreal\_0 ( \\
& k18\_complex1 (k4\_integra5 X3 X2 X5)) (k3\_xcmplx\_0 X4 (k6\_xcmplx\_0 \\
& X3 X2)))))))))
\end{aligned}$$