

## t5\_yellow\_2

(TMRys9Lt45W6EXSzt2Z2hJnaJTFHq4W1e3p)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 X1) \Rightarrow (\forall X2. (v1\_relat\_1 X2) \Rightarrow ((r1\_tarski X1 X2) \Rightarrow (r1\_tarski (k5\_relat\_1 X1 X0) (k5\_relat\_1 X2 X0)))) \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (r1\_tarski (k5\_relat\_1 X2 X0) (k5\_relat\_1 X2 X1))) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 X1) \Rightarrow (k2\_wellord1 X1 X0 = k5\_relat\_1 (k6\_relat\_1 X0 X1) X0) \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (r1\_tarski (k6\_relat\_1 X0 X2) (k6\_relat\_1 X1 X2))) \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 X1) \Rightarrow (v1\_relat\_1 (k6\_relat\_1 X0 X1)) \tag{6}$$

**Theorem 1**

$$\forall X0. (v1\_relat\_1 X0) \Rightarrow (\forall X1. \forall X2. (r1\_tarski X1 X2) \Rightarrow (r1\_tarski (k2\_wellord1 X0 X1) (k2\_wellord1 X0 X2)))$$