

# t27\_arytm\_3 (TMHhVpPppX- AYF1dGQS6taEB6cc2jTJvcK7F)

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r1\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3\_ordinal1 X0) \wedge (v7\_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3\_ordinal1 X1) \wedge (v7\_ordinal1 X1)) \Rightarrow ((\neg(X0 = k1\_xboole\_0) \wedge ( \\ & X1 = k1\_xboole\_0)) \Rightarrow (r1\_arytm\_3 (k4\_arytm\_3 X0 X1) (k4\_arytm\_3 \\ & X1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_ordinal1 X0) \wedge (v7\_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3\_ordinal1 X1) \wedge (v7\_ordinal1 X1)) \Rightarrow ((r1\_arytm\_3 X0 X1) \Leftrightarrow (k3\_arytm\_3 \\ & X0 X1 = np\_1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_ordinal1 X0) \wedge (v7\_ordinal1 X0)) \Rightarrow ((k3\_arytm\_3 \\ & X0 X0 = X0) \wedge (k2\_arytm\_3 X0 X0 = X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v3\_ordinal1 X0) \wedge (v7\_ordinal1 X0)) \wedge \\ & ((v3\_ordinal1 X1) \wedge (v7\_ordinal1 X1))) \Rightarrow (m1\_subset\_1 (k4\_arytm\_3 \\ & X0 X1) k4\_ordinal1) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (5)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (v3\_ordinal1 X0) \quad (6)$$

## Theorem 1

$$\begin{aligned} & \forall X0. ((v3\_ordinal1 X0) \wedge (v7\_ordinal1 X0)) \Rightarrow ((X0 \neq k1\_xboole\_0) \Rightarrow \\ & (k4\_arytm\_3 X0 X0 = np\_1)) \end{aligned}$$