

# t18\_bcialg\_5 (TMUFgtmJcTzA- JHDeMAhj2CtKBjt7CyVPbkX)

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Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v8\_bcialg\_1 : \iota \Rightarrow o$  be given. Let  $m1\_bcialg\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m2\_subset\_1 X0 k1\_numbers k5\_numbers) \Rightarrow (\forall X1. \\
 & (m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow (\forall X2.(m2\_subset\_1 \\
 & X2 k1\_numbers k5\_numbers) \Rightarrow (\forall X3.(m2\_subset\_1 X3 k1\_numbers \\
 & k5\_numbers) \Rightarrow (\forall X4.(m1\_bcialg\_5 X4 X0 X1 X2 X3) \Rightarrow (\forall X5. \\
 & (m2\_subset\_1 X5 k1\_numbers k5\_numbers) \Rightarrow (m1\_bcialg\_5 X4 X0 (k2\_nat\_1 \\
 & X1 X5) (k2\_nat\_1 X2 X5) X3))))))
 \end{aligned} \tag{1}$$

## Theorem 1

$$\begin{aligned}
 & \forall X0.(m2\_subset\_1 X0 k1\_numbers k5\_numbers) \Rightarrow (\forall X1. \\
 & (m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow (\forall X2.(m2\_subset\_1 \\
 & X2 k1\_numbers k5\_numbers) \Rightarrow (\forall X3.(m2\_subset\_1 X3 k1\_numbers \\
 & k5\_numbers) \Rightarrow (\forall X4.((v8\_bcialg\_1 X4) \wedge (m1\_bcialg\_5 X4 X0 \\
 & X1 X2 X3)) \Rightarrow (\forall X5.(m2\_subset\_1 X5 k1\_numbers k5\_numbers) \Rightarrow \\
 & ((v8\_bcialg\_1 X4) \wedge (m1\_bcialg\_5 X4 X0 (k2\_nat\_1 X1 X5) (k2\_nat\_1 \\
 & X2 X5) X3))))))
 \end{aligned}$$