

# l24\_scmp\_gcd

(TMUYGJJjD567VNczDNzTb4jUDxtD6CaNof5)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_scmpds\_2 : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v5\_funct\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarSKI : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_scmp\_gcd : \iota$  be given. Let  $k5\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_5 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_scmp\_gcd : \iota$  be given. Let  $k2\_scmp\_gcd : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_scmpds\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_8 : \iota$  be given. Let  $k2\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_scmpds\_2 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $k1\_scmp\_gcd : \iota \Rightarrow \iota$  be given. Let  $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_6 : \iota$  be given. Let  $np\_11 : \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k5\_numbers) \Rightarrow (k2\_scmpds\_2 X0 X1 = k1\_scmp\_gcd (k2\_nat\_1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_3) \wedge (m2\_subset\_1 np\_3 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_3 k5\_numbers) \wedge (m1\_subset\_1 np\_3 k1\_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((v1\_relat\_1 \\
& X1) \wedge ((v4\_relat\_1 X1 (u1\_struct\_0 k1\_scmpds\_2)) \wedge ((v1\_funct\_1 \\
& X1) \wedge ((v5\_funct\_1 X1 (k2\_memstr\_0 np\_2 k1\_scmpds\_2)) \wedge (v1\_partfun1 \\
& X1 (u1\_struct\_0 k1\_scmpds\_2)))))) \Rightarrow (\forall X2.((v1\_relat\_1 \\
& X2) \wedge ((v4\_relat\_1 X2 k5\_numbers) \wedge ((v5\_relat\_1 X2 (u1\_compos\_1 \\
& k1\_scmpds\_2)) \wedge ((v1\_funct\_1 X2) \wedge (v1\_partfun1 X2 k5\_numbers)))))) \Rightarrow \\
& ((r1\_tarski k4\_scmp\_gcd X2) \wedge ((k5\_memstr\_0 np\_2 k1\_scmpds\_2 \\
X1 = np\_5) \wedge ((X0 = k1\_funct\_1 X1 k3\_scmp\_gcd) \wedge (k1\_funct\_1 X1 k2\_scmp\_gcd = \\
& k6\_numbers)))) \Rightarrow ((r1\_xxreal\_0 (k1\_funct\_1 X1 (k2\_scmpds\_2 (k1\_funct\_1 \\
& X1 k3\_scmp\_gcd) np\_3)) k6\_numbers) \vee ((k5\_memstr\_0 np\_2 k1\_scmpds\_2 \\
& (k5\_extpro\_1 np\_2 k1\_scmpds\_2 X2 X1 np\_7) = k2\_nat\_1 np\_5 np\_7) \wedge \\
& ((k5\_extpro\_1 np\_2 k1\_scmpds\_2 X2 X1 np\_8 = k2\_extpro\_1 np\_2 \\
& k1\_scmpds\_2 (k3\_scmpds\_2 (k4\_xcmplx\_0 np\_7)) (k5\_extpro\_1 np\_2 \\
& k1\_scmpds\_2 X2 X1 np\_7)) \wedge ((k1\_funct\_1 (k5\_extpro\_1 np\_2 k1\_scmpds\_2 \\
& X2 X1 np\_7) k3\_scmp\_gcd = k2\_nat\_1 X0 np\_4) \wedge ((k1\_funct\_1 (k5\_extpro\_1 \\
& np\_2 k1\_scmpds\_2 X2 X1 np\_7) k2\_scmp\_gcd = k6\_numbers) \wedge ((k1\_funct\_1 \\
& (k5\_extpro\_1 np\_2 k1\_scmpds\_2 X2 X1 np\_7) (k1\_scmp\_gcd (k2\_nat\_1 \\
& X0 np\_7)) = k6\_int\_1 (k1\_funct\_1 X1 (k2\_scmpds\_2 (k1\_funct\_1 X1 \\
& k3\_scmp\_gcd) np\_2)) (k1\_funct\_1 X1 (k2\_scmpds\_2 (k1\_funct\_1 \\
& X1 k3\_scmp\_gcd) np\_3))) \wedge ((k1\_funct\_1 (k5\_extpro\_1 np\_2 k1\_scmpds\_2 \\
& X2 X1 np\_7) (k1\_scmp\_gcd (k2\_nat\_1 X0 np\_6)) = k1\_funct\_1 X1 (k2\_scmpds\_2 \\
& (k1\_funct\_1 X1 k3\_scmp\_gcd) np\_3)) \wedge ((k1\_funct\_1 (k5\_extpro\_1 \\
& np\_2 k1\_scmpds\_2 X2 X1 np\_7) (k1\_scmp\_gcd (k2\_nat\_1 X0 np\_4)) = \\
& X0) \wedge (k1\_funct\_1 (k5\_extpro\_1 np\_2 k1\_scmpds\_2 X2 X1 np\_7) (k1\_scmp\_gcd \\
& (k2\_nat\_1 X0 np\_5)) = np\_11))))))))))
\end{aligned} \tag{4}$$

