

$$\begin{aligned} \text{Exp}(x_0, x_1) \equiv & [[x_0 = 0] \wedge [x_1 = 1]] \vee [(\exists x_2 < (((x_1 \cdot x_1) \cdot x_1) \cdot x_1) + 1)][(\exists x_3 < (((x_1 \cdot x_1) \cdot x_1) \cdot x_1) + 1)][[(\exists x_4 < (x_2 + 1))][[0 \neq \\ & (((1 + 1) + 1) + 1)] \vee [(((1 + 1) + 1) + 1) \cdot x_4 = x_2] \vee [(((1 + 1) + 1) + 1) \cdot x_4 < x_2]] \wedge [x_2 < (((1 + 1) + 1) + 1) \cdot (x_4 + 1)]]] \wedge [(((1 + 1) + 1) + 1) \neq \\ & 0] \vee [x_4 = 0]] \wedge [(\exists x_5 < (x_4 + 1))][[0 \neq (((1 + 1) + 1) + 1)] \vee [(((1 + 1) + 1) + 1) \cdot x_5 = x_4] \vee [(((1 + 1) + 1) + 1) \cdot x_5 < x_4]] \wedge [x_4 < \\ & (((1 + 1) + 1) + 1) \cdot (x_5 + 1)]] \wedge [(((1 + 1) + 1) + 1) \neq 0] \vee [x_5 = 0]] \wedge [((((1 + 1) + 1) + 1) \cdot x_5 \neq x_4] \wedge [(((1 + 1) + 1) + 1) \cdot x_5 \neq x_4]] \vee [x_4 = \\ & (((1 + 1) + 1) + 1) \cdot (x_5 + 1)] \wedge [[x_4 \neq (((1 + 1) + 1) + 1) \cdot x_5] \vee [1 = 0]]] \wedge [(\exists x_4 < (x_3 + 1))][[0 \neq (((1 + 1) + 1) + 1)] \vee [((((1 + 1) + 1) + 1) \cdot x_4 = \\ & x_3] \vee [(((1 + 1) + 1) + 1) \cdot x_4 < x_3]] \wedge [x_3 < (((1 + 1) + 1) + 1) \cdot (x_4 + 1)]] \wedge [(((1 + 1) + 1) + 1) \neq 0] \vee [x_4 = 0]] \wedge [(\exists x_5 < (x_4 + 1))][[0 \neq \\ & (((1 + 1) + 1) + 1)] \vee [((((1 + 1) + 1) + 1) \cdot x_5 = x_4] \vee [(((1 + 1) + 1) + 1) \cdot x_5 < x_4]] \wedge [x_4 < (((1 + 1) + 1) + 1) \cdot (x_5 + 1)]] \wedge [(((1 + 1) + 1) + 1) \neq \\ & 0] \vee [x_5 = 0]] \wedge [((((1 + 1) + 1) + 1) \cdot x_5 \neq x_4] \wedge [(((1 + 1) + 1) + 1) \cdot x_5 \neq x_4]] \vee [x_4 = (((1 + 1) + 1) + 1) \cdot x_5 + (1 + 1)]] \wedge [x_4 \neq \\ & (((1 + 1) + 1) + 1) \cdot x_5] \vee [(1 + 1) = 0]]] \wedge [(\forall x_4 < (x_1 + 1))[x_4 = (1 + 1)] \vee [([0 \neq x_4] \vee [(\exists x_5 < (x_4 + 1))[1 < x_5] \wedge [(\exists x_6 < (x_4 + 1))x_4 = \\ & (x_5 \cdot x_6)] \wedge [(\forall x_6 < (x_5 + 1))x_5 \neq ((1 + 1) \cdot x_6)]))] \vee [(\forall x_5 < ((1 + 1) \cdot x_4))][[(\exists x_6 < (x_5 + 1))][[0 \neq 1] \vee [((1 \cdot x_6) = x_5) \vee [(1 \cdot x_6) < x_5]] \wedge [x_5 < \\ & (1 \cdot (x_6 + 1))]]] \wedge [1 \neq 0] \vee [x_6 = 0]] \wedge [(\forall x_7 < (x_6 + 1))[x_6 \neq ((1 + 1) \cdot x_7)]] \vee [(\forall x_6 < (x_5 + 1))][[0 < (1 + 1)] \wedge [((1 + 1) \cdot x_6) \neq x_5] \wedge [((1 + 1) \cdot x_6) \neq \\ & x_5]] \vee [x_5 \neq ((1 + 1) \cdot (x_6 + 1))] \vee [((1 + 1) = 0) \wedge [x_6 \neq 0]] \vee [(\exists x_7 < (x_6 + 1))[x_6 = ((1 + 1) \cdot x_7)]] \vee [(\exists x_6 < (x_5 + 1))][[0 < x_6] \wedge [(\forall x_7 < (x_6 + 1))[1 \neq \\ & x_7] \vee [(\forall x_8 < (x_6 + 1))[x_6 \neq (x_7 \cdot x_8)]] \vee [(\exists x_8 < (x_7 + 1))[x_7 = ((1 + 1) \cdot x_8)]]] \wedge [(1 + 1) < x_6] \wedge [((\exists x_7 < (x_5 + 1))][[0 \neq x_6] \vee [(x_6 \cdot x_7) = \\ & x_5] \vee [(x_6 \cdot x_7) < x_5]] \wedge [x_5 < (x_6 \cdot (x_7 + 1))]] \wedge [x_6 \neq 0] \vee [x_7 = 0]] \wedge [(\forall x_8 < (x_7 + 1))[x_7 \neq ((1 + 1) \cdot x_8)]] \wedge [(\forall x_7 < (x_6 + 1))][[(x_7 \cdot x_7) \neq \\ & x_6] \wedge [(x_7 \cdot x_7) \neq x_6]] \vee [x_6 \neq ((x_7 + 1) \cdot (x_7 + 1))] \vee [((x_7 \cdot x_7) \neq x_6] \vee [(\forall x_8 < (x_5 + 1))][[0 < x_7] \wedge [((x_7 \cdot x_8) \neq x_5] \wedge [(x_7 \cdot x_8) \neq x_5] \\ & (x_7 \cdot (x_8 + 1))]] \vee [x_7 = 0] \wedge [x_8 \neq 0]] \vee [(\exists x_9 < (x_8 + 1))[x_8 = ((1 + 1) \cdot x_9)]]] \vee [((\exists x_7 < (x_6 + 1))][[(x_7 \cdot x_7) = x_6] \vee [(x_7 \cdot x_7) < x_6]] \wedge [x_6 < \\ & ((x_7 + 1) \cdot (x_7 + 1))]] \wedge [((x_7 \cdot x_7) = x_6] \wedge [(\exists x_8 < (x_5 + 1))][[0 \neq x_7] \vee [((x_7 \cdot x_8) = x_5] \vee [(x_7 \cdot x_8) < x_5]] \wedge [x_5 < (x_7 \cdot (x_8 + 1))]] \wedge [x_7 \neq 0] \vee [x_8 = \\ & 0]] \wedge [(\forall x_9 < (x_8 + 1))[x_8 \neq ((1 + 1) \cdot x_9)]]] \wedge [(\forall x_7 < (x_5 + 1))][[0 < x_6] \wedge [((x_6 \cdot x_7) \neq x_5] \wedge [(x_6 \cdot x_7) \neq x_5]] \vee [x_5 \neq (x_6 \cdot (x_7 + 1))] \vee [x_6 = 0] \wedge [x_7 \neq \\ & 0]] \vee [(\exists x_8 < (x_7 + 1))[x_7 = ((1 + 1) \cdot x_8)]]] \vee [(\forall x_6 < (x_5 + 1))][[0 < x_4] \wedge [((x_4 \cdot x_6) \neq x_5] \wedge [(x_4 \cdot x_6) \neq x_5]] \vee [x_5 \neq (x_4 \cdot (x_6 + 1))] \vee [x_4 = \\ & 0] \wedge [x_6 \neq 0]] \vee [(\exists x_7 < (x_6 + 1))[x_6 = ((1 + 1) \cdot x_7)]]] \vee [((\exists x_5 < (x_2 + 1))][[(\exists x_6 < (x_2 + 1))][[0 \neq x_4] \vee [((x_4 \cdot x_6) = x_2) \vee [(x_4 \cdot x_6) < x_2]] \wedge [x_2 < \\ & (x_4 \cdot (x_6 + 1))]]] \wedge [x_4 \neq 0] \vee [x_6 = 0]] \wedge [(\exists x_7 < (x_6 + 1))][[0 \neq x_4] \vee [((x_4 \cdot x_7) = x_6] \vee [(x_4 \cdot x_7) < x_6]] \wedge [x_6 < (x_4 \cdot (x_7 + 1))]] \wedge [x_4 \neq 0] \vee [x_7 = \\ & 0]] \wedge [((x_4 \cdot x_7) \neq x_6] \wedge [(x_4 \cdot x_7) \neq x_6]] \vee [x_6 = ((x_4 \cdot x_7) + x_5)] \wedge [x_6 \neq (x_4 \cdot x_7)] \vee [x_5 = 0]]] \vee [(\exists x_6 < (x_2 + 1))][[0 \neq (x_4 \cdot x_4)] \vee [((x_4 \cdot x_4) \cdot x_6 = \\ & x_2] \vee [((x_4 \cdot x_4) \cdot x_6) < x_2]] \wedge [x_2 < ((x_4 \cdot x_4) \cdot (x_6 + 1))] \wedge [((x_4 \cdot x_4) \neq 0] \vee [x_6 = 0]] \wedge [(\exists x_7 < (x_6 + 1))][[0 \neq (x_4 \cdot x_4)] \vee [((x_4 \cdot x_4) \cdot x_7 = \\ & x_6] \vee [((x_4 \cdot x_4) \cdot x_7) < x_6]] \wedge [x_6 < ((x_4 \cdot x_4) \cdot (x_7 + 1))] \wedge [((x_4 \cdot x_4) \neq 0] \vee [x_7 = 0]] \wedge [(((x_4 \cdot x_4) \cdot x_7) \neq x_6] \wedge [((x_4 \cdot x_4) \cdot x_7) \neq x_6] \vee [x_6 = \\ & ((x_4 \cdot x_4) \cdot x_7) + ((1 + 1) \cdot x_5)]] \wedge [x_6 \neq ((x_4 \cdot x_4) \cdot x_7)] \vee [((1 + 1) \cdot x_5) = 0]]] \wedge [(\exists x_5 < (x_3 + 1))][[(\exists x_6 < (x_3 + 1))][[0 \neq x_4] \vee [((x_4 \cdot x_6) = \\ & x_3] \vee [(x_4 \cdot x_6) < x_3]] \wedge [x_3 < (x_4 \cdot (x_6 + 1))] \wedge [x_4 \neq 0] \vee [x_6 = 0]] \wedge [(\exists x_7 < (x_6 + 1))][[0 \neq (x_4 \cdot x_4)] \vee [((x_4 \cdot x_4) \cdot x_6) = x_3] \vee [((x_4 \cdot x_4) \cdot x_6) < x_3]] \\ & \wedge [x_3 < ((x_4 \cdot x_4) \cdot (x_6 + 1))] \wedge [((x_4 \cdot x_4) \neq 0] \vee [x_6 = 0]] \wedge [(\exists x_7 < (x_6 + 1))][[0 \neq (x_4 \cdot x_4)] \vee [((x_4 \cdot x_4) \cdot x_7) = x_6] \vee [((x_4 \cdot x_4) \cdot x_7) < x_6]] \wedge [x_6 < \\ & ((x_4 \cdot x_4) \cdot (x_7 + 1))] \wedge [((x_4 \cdot x_4) \neq 0] \vee [x_7 = 0]] \wedge [(((x_4 \cdot x_4) \cdot x_7) \neq x_6] \wedge [((x_4 \cdot x_4) \cdot x_7) \neq x_6]] \vee [x_6 = ((x_4 \cdot x_4) \cdot x_7) + (x_5 \cdot x_$$