

$(\exists(x_0 : Int)).$
 $(\forall(x_1 : Array(Int, Int))).$
 $(\exists(x_2 : Array(Int, Int))).$
 $(\forall(x_3 : Int)).$
 $(\exists(x_4 : Int), (x_5 : Int)).$
 $(\forall(x_6 : Int)).$
 $(\exists(x_7 : Array(Int, Int))).$
 $(\forall(x_8 : Array(Int, Int))).$
 $(\exists(x_9 : Int), (x_{10} : Array(Int, Int))).$
 $(\forall(x_{11} : Int), (x_{12} : Int), (x_{13} : Int), (x_{14} : Int)).$
 $(\exists(x_{15} : Int)).$
 $(\forall(x_{16} : Int)).$
let
 $a!1 = (x_9 = select(store(x_{10}, x_6, x_{11}), array - ext(x_7, x_8)))$
 $a!3 = ((\neg(array - ext(x_2, x_1) = x_{16})) \vee (\neg(select(array_{t_4}, x_{16}) = x_3)))$
 $a!4 = ((x_{15} = array - ext(x_2, x_1)) \wedge (\neg(select(array_{s_4}, x_{15}) = x_3)) \wedge q_3(x_{15}) \wedge$
 $q_2(x_{15}) \wedge q_1(x_{15}) \wedge p_4(x_{15}))$
 $a!5 = ((x_0 = array - ext(x_2, x_1)) \wedge (\neg(select(array_{s_2}, x_0) = x_3)) \wedge p_2(x_0) \wedge$
 $q_1(x_0))$
 $a!6 = ((x_4 = array - ext(x_2, x_1)) \wedge (\neg(select(array_{s_3}, x_4) = x_3)) \wedge q_1(x_4) \wedge$
 $p_3(x_4) \wedge q_2(x_4))$
 $a!7 = ((x_5 = array - ext(x_2, x_1)) \wedge (\neg(select(array_{s_1}, x_5) = x_3)) \wedge p_1(x_5))$
 $a!8 = (\neg((array - ext(x_7, x_8) = x_{14}) \wedge (x_1 = x_8)))$
 $a!13 = ((\neg(array - ext(x_2, x_1) = x_{12})) \vee (\neg(select(array_{t_2}, x_{12}) = x_3)) \vee$
 $p_1(x_{12}) \vee q_2(x_{12}) \vee p(x_1))$
 $a!14 = ((\neg(array - ext(x_2, x_1) = x_{13})) \vee (\neg(select(array_{t_3}, x_{13}) = x_3)) \vee$
 $p_2(x_{13}) \vee q_3(x_{13}) \vee p_1(x_{13}) \vee p(x_1))$
 $a!16 = ((\neg(array - ext(x_2, x_1) = x_{16})) \vee (\neg(select(array_{s_2}, x_0) = x_3)))in$
let
 $a!2 = (a!1 \wedge (select(store(s, x_6, x_{11}), array - ext(x_2, x_8)) = x_3))$
 $a!9 = (a!8 \vee (\neg(select(array_{t_1}, x_{14}) = x_3)))$
 $a!10 = (a!8 \vee (\neg(select(array_{s_2}, x_0) = x_3)))$
 $a!11 = (a!8 \vee (\neg(select(array_{s_4}, x_{15}) = x_3)))in$
let
 $a!12 = (((array - ext(x_7, x_8) = array - ext(x_2, x_8)) \wedge a!9) \vee q_1(x_{14}) \vee ((x_0 =$
 $x_{14}) \wedge (array - ext(x_7, x_8) = array - ext(x_2, x_8)) \wedge a!10 \wedge p_2(x_0) \wedge q_1(x_0)) \vee$
 $p(x_1) \vee ((x_{15} = x_{14}) \wedge (array - ext(x_7, x_8) = array - ext(x_2, x_8)) \wedge a!11 \wedge$
 $q_3(x_{15}) \wedge q_2(x_{15}) \wedge q_1(x_{15}) \wedge p_4(x_{15})))$
 $a!17 = ((\neg a!2) \wedge ((x_0 = x_{16}) \wedge a!16 \wedge p_2(x_0) \wedge q_1(x_0)) \vee p(x_1))in$
let
 $a!15 = (((\neg a!2) \wedge a!3) \vee a!4 \vee p(x_1) \vee a!5 \vee a!6 \vee a!7) \wedge a!12 \wedge ((x_6 = array -$
 $ext(x_7, x_8)) \vee a!1) \wedge a!13 \wedge a!14)$
 $a!18 = ((a!17 \vee a!4 \vee p(x_1) \vee a!5 \vee a!6 \vee a!7) \wedge a!12 \wedge ((x_6 = array - ext(x_7, x_8)) \vee$
 $a!1) \wedge a!13 \wedge a!14)in$
let
 $a!19 = (((\neg a!2) \wedge (a!15 \vee p(x_1) \vee q_4(x_{16}) \vee p_1(x_{16}) \vee a!18 \vee p_3(x_{16}))) \vee a!4 \vee p(x_1) \vee$

$a!5 \vee a!6 \vee a!7)in$
 let
 $a!20 = (a!19 \wedge a!12 \wedge ((x_6 = array - ext(x_7, x_8)) \vee a!1) \wedge a!13 \wedge a!14)in$
 $(a!20 \vee p(x_1))))))))))$