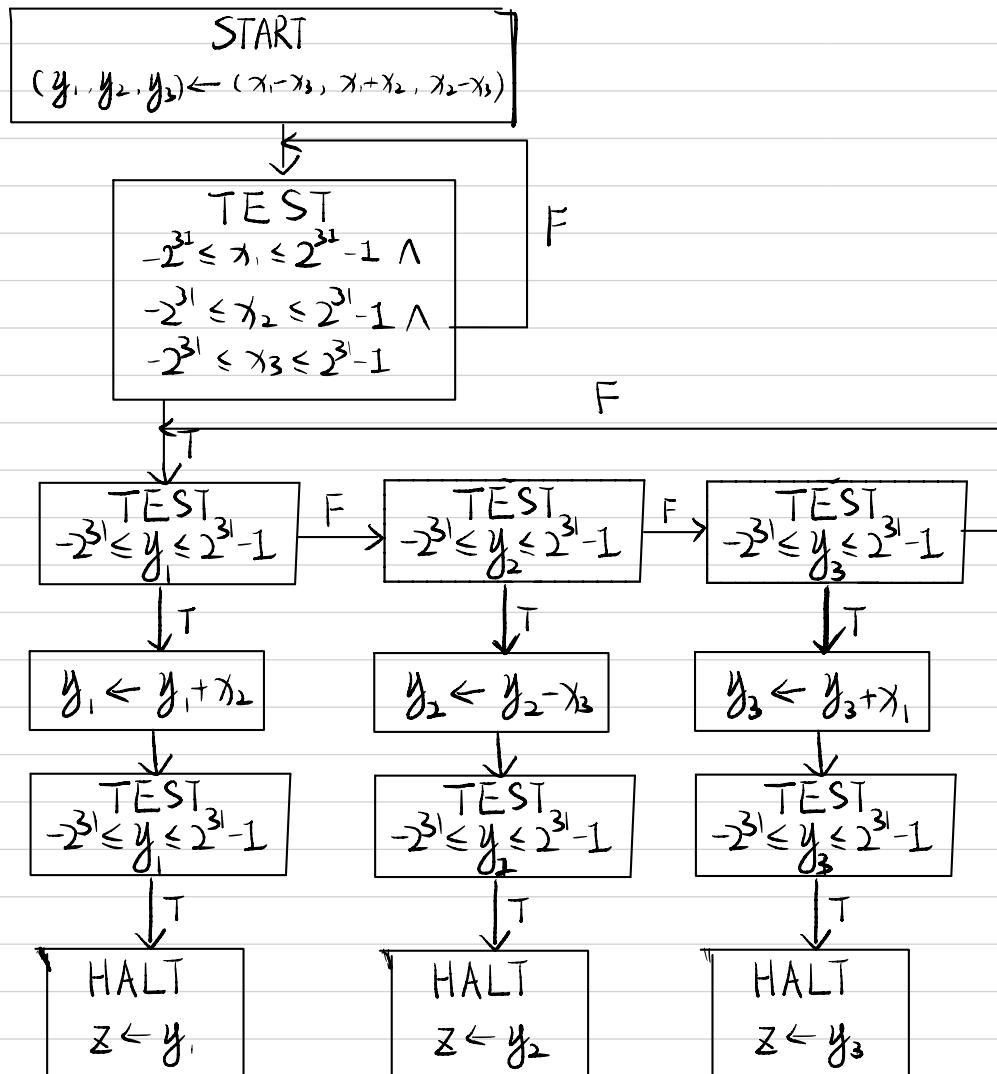


$$P_2 : \mathcal{D}_{x_1} = \mathcal{D}_{x_2} = \mathcal{D}_{x_3} = \mathcal{D}_y_1 = \mathcal{D}_y_2 = \mathcal{D}_y_3 = \mathcal{D}_z = \mathbb{Z}$$



$$M[EP](\bar{x}) = \begin{cases} y_1 & y_1, -2^{31} \leq x_1 - x_3 \leq 2^{31}-1 \text{ I} \\ y_2 & y_2, -2^{31} \leq x_1 + x_2 \leq 2^{31}-1 \text{ II} \\ y_3 & y_3, -2^{31} \leq x_2 - x_3 \leq 2^{31}-1 \text{ III} \\ w & w, \neg(I \wedge II \wedge III) \end{cases} = \begin{cases} y_1 + y_2 & y_1 + y_2 \leq 2^{31}-1 \text{ I} \wedge \text{II} \text{ IV} \\ y_2 - y_3 & y_2 - y_3 \leq 2^{31}-1 \text{ II} \wedge \text{III} \text{ V} \\ y_3 + y_1 & y_3 + y_1 \leq 2^{31}-1 \text{ III} \wedge \text{I} \text{ VI} \\ w & w, \neg(IV \wedge V \wedge VI) \end{cases}$$

$$= \begin{cases} x_1 - x_3 + x_2 & -2^{31} \leq x_1 - x_3 + x_2 \leq 2^{31}-1 \wedge \text{IV} \text{ VII} \\ x_1 + x_2 - x_3 & -2^{31} \leq x_1 + x_2 - x_3 \leq 2^{31}-1 \wedge \text{V} \text{ VIII} \\ x_2 - x_3 + x_1 & -2^{31} \leq x_2 - x_3 + x_1 \leq 2^{31}-1 \wedge \text{VI} \text{ IX} \\ w & w, \neg(VII \wedge VIII \wedge IX) \end{cases}$$

$$= \begin{cases} x_1 - x_3 + x_2, -2^{31} \leq x_1 - x_3 + x_2 \leq 2^{31}-1 \wedge (\text{I} \vee \text{II} \vee \text{III}) \text{ X} \\ w \neg(X) \end{cases}$$

$$T_1 : p(\bar{x}) \equiv (-2^{31} \leq x_1 \leq 2^{31}-1 \wedge -2^{31} \leq x_2 \leq 2^{31}-1 \wedge -2^{31} \leq x_3 \leq 2^{31}-1 \wedge -2^{31} \leq x_1 - x_3 \leq 2^{31}-1 \wedge -2^{31} \leq x_2 + x_1 - x_3 \leq 2^{31}-1)$$

$$\psi(\bar{x}, z) \equiv (z_1 = x_2 + x_1 - x_3)$$

$$D_2 : \forall \bar{x} \in D_{\bar{x}} \cdot p(\bar{x}) \Rightarrow M[EP](\bar{x}) \neq w \wedge \psi(\bar{x}, z)$$

где више формулировки

\Rightarrow неиз копр. \Rightarrow зам копр

$$T_2 : p(\bar{x}) \equiv (-2^{31} \leq x_1 \leq 2^{31}-1 \wedge -2^{31} \leq x_2 \leq 2^{31}-1 \wedge -2^{31} \leq x_3 \leq 2^{31}-1 \wedge -2^{31} \leq x_2 + x_1 - x_3 \leq 2^{31}-1)$$

$$\psi(\bar{x}, z) \equiv (z_1 = x_2 + x_1 - x_3)$$

$$D_2 : \text{если } -2^{31} \leq x_2 + x_1 - x_3 \leq 2^{31}-1$$

$$\Rightarrow \begin{cases} -2^{32} \leq x_1 + x_2 \leq 2^{32}-2 \\ -2^{32} \leq x_1 - x_3 \leq 2^{32}-2 \\ -2^{32} \leq x_2 - x_3 \leq 2^{32}-2 \end{cases} \xrightarrow{M[EP](\bar{x})}$$

\Rightarrow замкн для огни блокиров \Rightarrow неиз копр \Rightarrow зам