

| x_1 | a_7-a_4 | a_3-a_0 | b_7-b_4 | b_3-b_0 | |
|-------|------------------------|-----------------|------------------------|-----------------|---|
| | 1xxx | xxxx | 0xxx | xxxx | ① |
| | a_7 1xx | xxxx | a_7 0xx | xxxx | ② |
| | $a_7 a_6$ 1x | xxxx | $a_7 a_6$ 0x | xxxx | ③ |
| | $a_7 a_6 a_5$ 1 | xxxx | $a_7 a_6 a_5$ 0 | xxxx | ④ |
| | $a_7 a_6 a_5 a_4$ 1xxx | | $a_7 a_6 a_5 a_4$ 0xxx | | ⑤ |
| | 11 | a_3 1xx | 1 | a_3 0xx | ⑥ |
| | 1 | $a_3 a_2$ 1x | 1 | $a_3 a_2$ 0x | ⑦ |
| | 1 | $a_3 a_2 a_1$ 1 | 1 | $a_3 a_2 a_1$ 0 | ⑧ |

$$(a > b) x_1 \equiv ① \text{ OR } ② \text{ OR } ③ \dots \text{ OR } ⑧$$

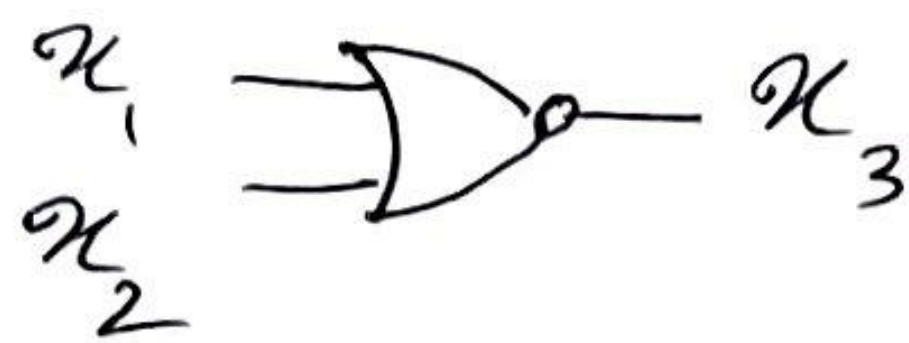
$$① \equiv \frac{a_7}{b_7} = 1 \quad ①$$

$$② \equiv \begin{matrix} a_7 & b_7 \\ \text{XOR} & \\ a_6 & b_6 \\ \text{AND} & \end{matrix} \quad (a_7 b_7) \quad ②$$

$$③ \equiv \begin{matrix} a_7 b_7 \\ \text{AND} & \\ a_6 b_6 & \\ \text{AND} & \end{matrix}$$

$$K_2(a=b) \equiv (a_7b_7) \text{ AND } (a_6b_6) \text{ \& } (a_5b_5) \text{ \& } \dots \text{ \& } (a_0b_0)$$

$K_3(a < b) :$



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