

$$T_1 : r_1(x) = 0, r_1(y) = 0, w_1(x) = 1$$

$$T_2 : r_2(x) = 1, r_2(y) = 0$$

$$T_3 : r_3(x) = 0, r_3(y) = 0, w_3(y) = 1$$

$$T_4 : \textcolor{red}{r_4(x) = 0}, r_4(y) = 1$$