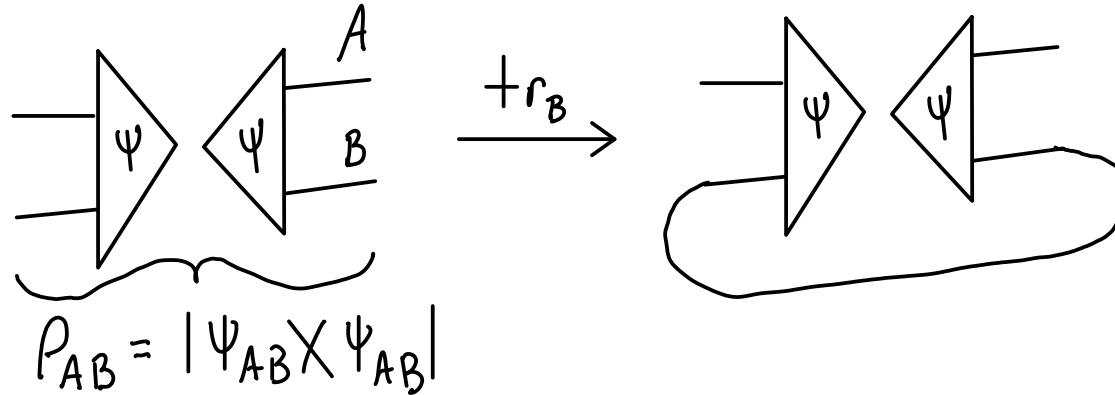
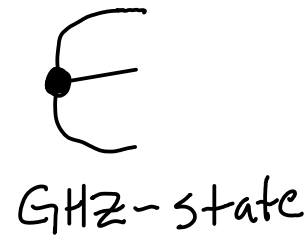
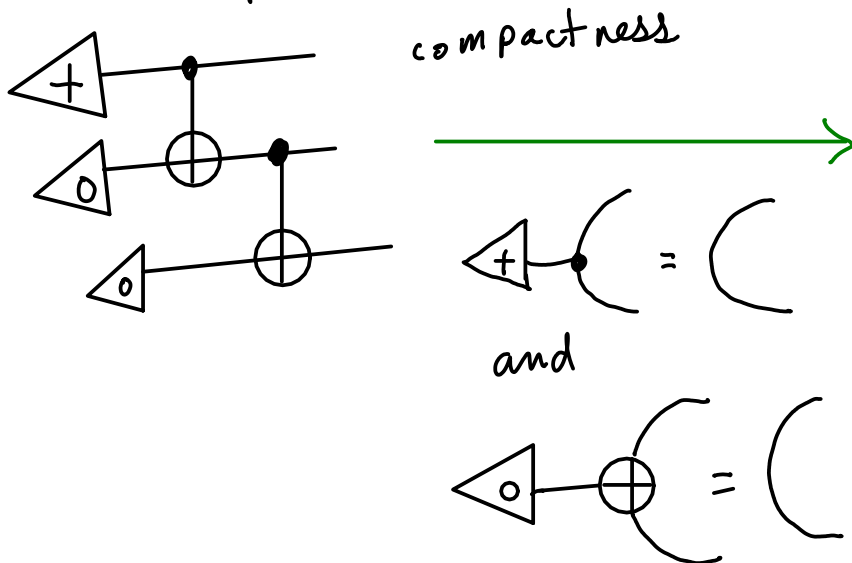


Let $\Psi_{AB} = \sum_i \sqrt{p_i} |i_A\rangle \otimes |i_B\rangle$

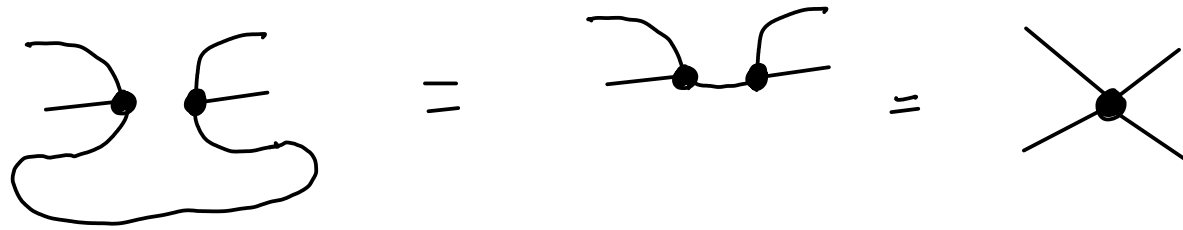
then $\rho_A = \text{tr}_B |\Psi_{AB}\rangle\langle\Psi_{AB}| = \sum_i p_i |i_A\rangle\langle i_A|$



GHZ-example:

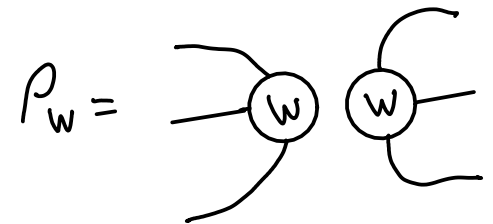
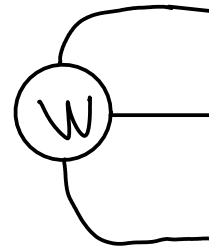
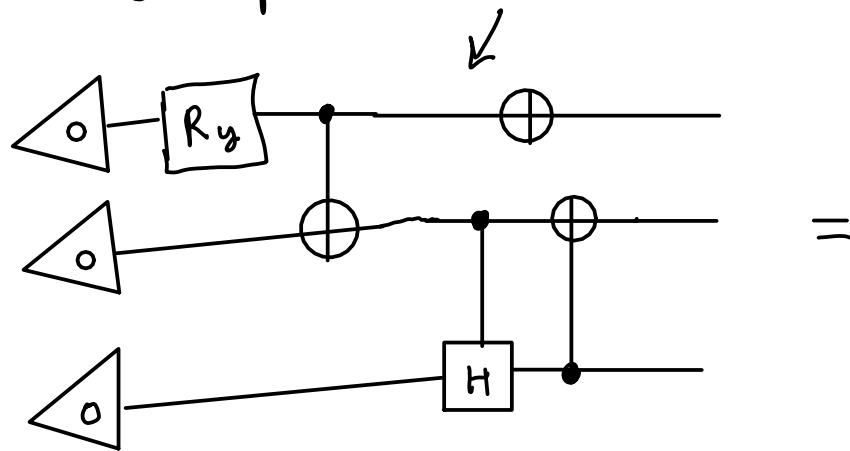


$$\text{tr}_3 \rho_{\text{GHZ}}$$



W-State example

$$W = |001\rangle + |010\rangle + |100\rangle$$



$$\text{tr}_3 \rho_W$$

