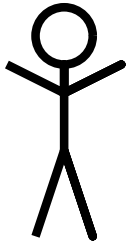
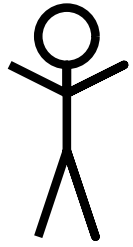


Alice

$$E(\mathbb{F}_{p^2}) \cong (\mathbb{Z}/2^{e_A}3^{e_B}\mathbb{Z})^2$$

Bob



$$E[2^{e_A}] = \langle P_A, Q_A \rangle \qquad E[3^{e_B}] = \langle P_B, Q_B \rangle$$