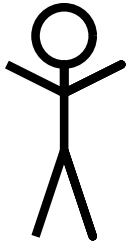
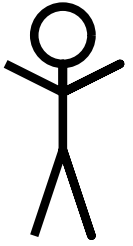


Alice

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

Bob



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

Choose $m_A, n_A \in \mathbb{Z}$

$A := [m_A]P_A + [n_A]Q_A$