$p_1^2 = 0$
$p_1 - k_1$
$p_1 - k_1 + k_2$
$q_2^2 = 0$
$p_1 - q_2 - k_1 + k_2$
k_1
m_2
k_2
m_1
$q_1^2 = m_1^2$
$q_1 - k_1$
$k_2 - p_2$
$p_2^2 = 0$