$$\mathbb{E}_{\{\} \to \{1\}}\left[0,\ 0,\ -x_1 + \left(\frac{\hbar^2 x_1}{2} - \hbar^2 a_1 x_1 + \frac{1}{2}\hbar^2 a_1^2 x_1\right)\epsilon^2 + O[\epsilon]^3\right]$$