

$$H_3 = \frac{g}{3} \left( \frac{2\mu}{g} \right)^3 + \frac{g}{12} \left( x + \sqrt{3}x' + \frac{4\mu}{g} \right) \left( x - \sqrt{3}x' + \frac{4\mu}{g} \right) \left( x - \frac{2\mu}{g} \right)$$