Name: _____   **Student ID:** _____

You are given the following multiple state model:
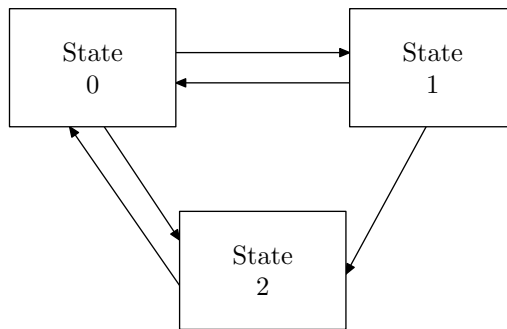
Based on Kolmogorov's forward equations, the following differential equation is used to solve for the probability of transitioning from State 0 to State 2:

$$\frac{d}{dt}{}_tp_x^{02} = {}_tp_x^{00}\,\mu_{x+t}^{02} + \cdots\cdots$$

Write out the rest of the formula. Hint: There are two missing terms: one with a plus (+) sign and one with a minus (−) sign.