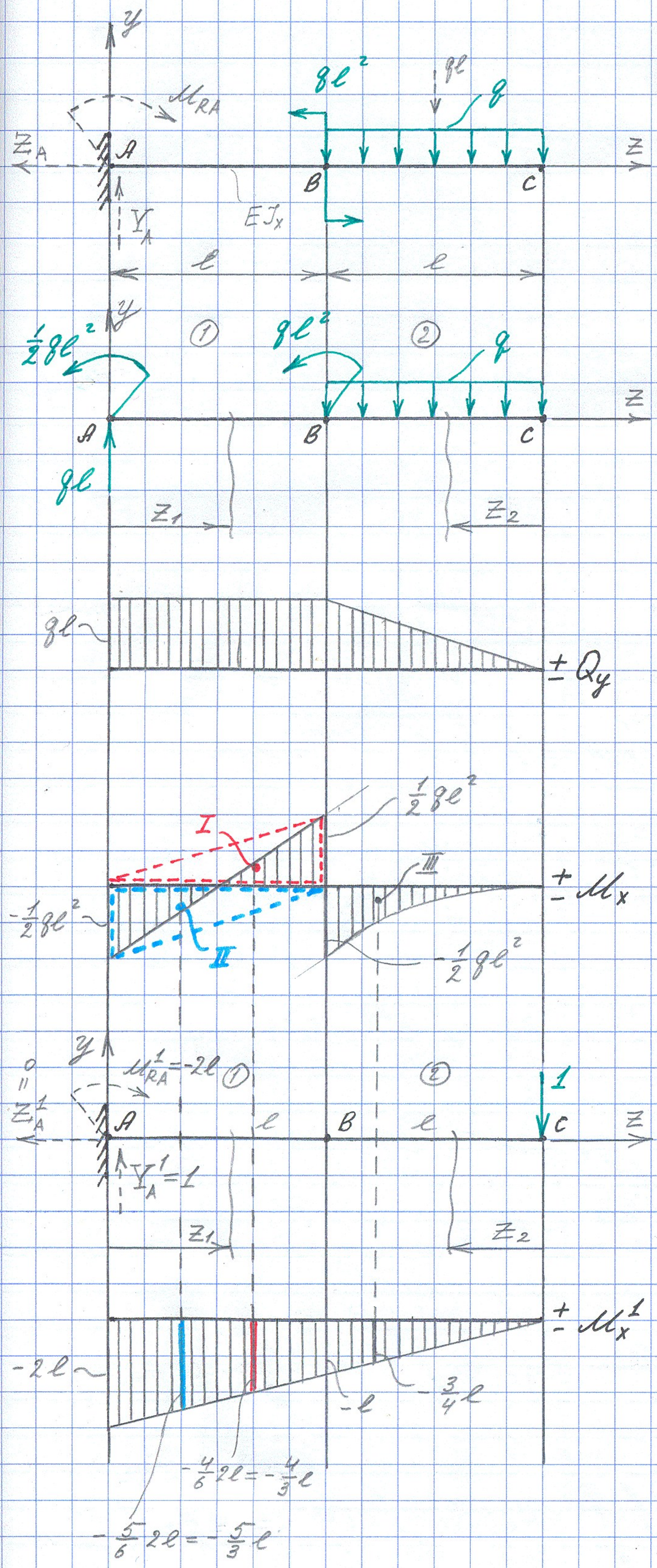

$$V_C = ?$$

$$\sum F_z = 0 = -Z_A \Rightarrow Z_A = 0$$

$$\sum F_y = 0 = Y_A - q\cdot\ell \Rightarrow Y_A = q\ell$$

$$\sum M_A = 0 = -M_{RA} + q\ell^2 - q\ell\cdot\frac{3}{2}\ell \Rightarrow M_{RA} = -\frac{q\ell^2}{2}$$

РОЗУ

$$Q_{y_1} = q\ell$$

$$Q_{y_2} = q\cdot Z_2$$

$$M_{x_1} = \frac{q}{2}(2\ell Z_1 - \ell^2)$$

$$M_{x_2} = -\underbrace{\frac{qZ_2^2}{2}}_{\text{парабола}}$$

РОЗУ

$$\sum F_z = 0 = -Z_A^1 \Rightarrow Z_A^1 = 0$$

$$\sum F_y = 0 = Y_A^1 - 1 \Rightarrow Y_A^1 = 1$$

$$\sum M_A = 0 = -M_{RA}^1 - 1\cdot 2\ell \Rightarrow M_{RA}^1 = -2\ell$$

$$M_{x_1}^1 = -1\cdot\ell = -\ell$$

$$M_{x_2}^1 = Z_2 - 2\ell$$

РОЗУ

$$V_C = \frac{M_x \cdot M_x^1}{EJ_x} = \frac{1}{EJ_x}\Big[\Big(\underbrace{\frac{1}{2}\ell\,\frac{1}{2}q\ell^2}_{I}\Big)\Big(-\frac{4}{3}\ell\Big) + \Big(\underbrace{-\frac{1}{2}\ell\,\frac{1}{2}q\ell^2}_{II}\Big)\Big(-\frac{5}{3}\ell\Big) + \Big(\underbrace{-\frac{1}{3}\ell\,\frac{1}{2}q\ell^2}_{III}\Big)\Big(-\frac{3}{4}\ell\Big)\Big] =$$

$$= \frac{q\ell^4}{4EJ_x}\Big[-\frac{4}{3} + \frac{5}{3} + \frac{1}{2}\Big] = \frac{5}{24}\,\frac{q\ell^4}{EJ_x}$$