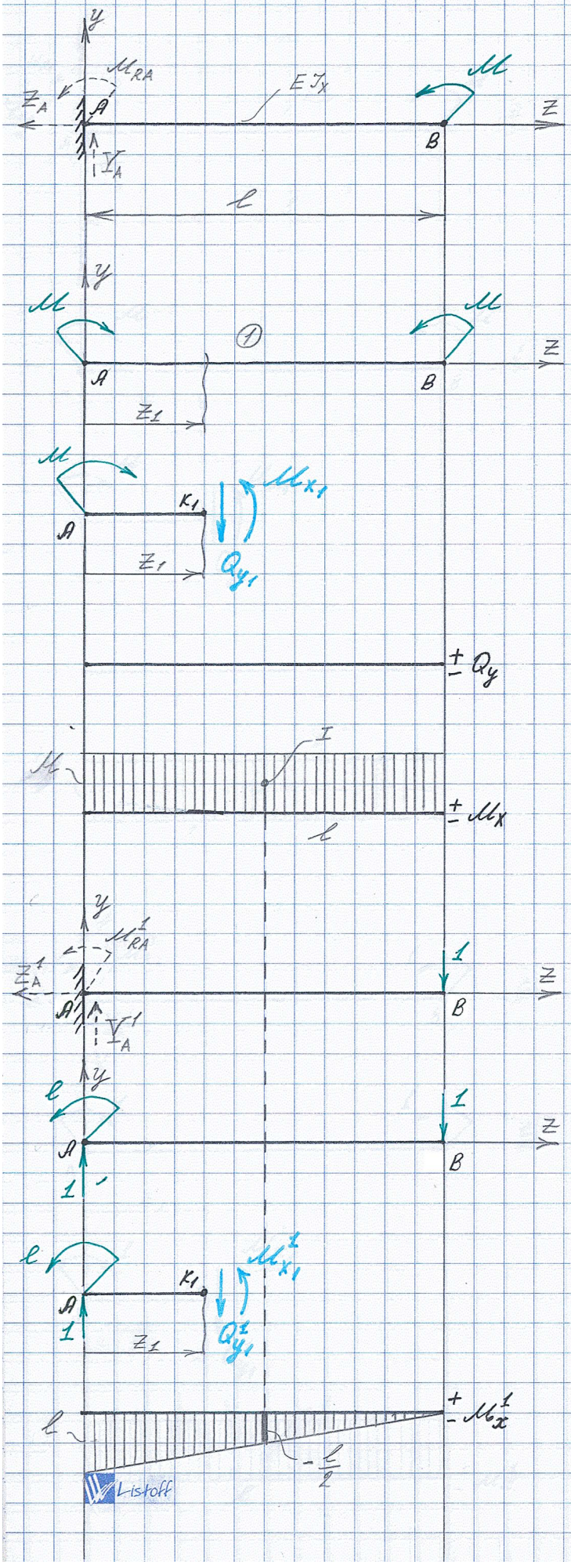

$V_B = ?$

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

$\sum F_y = 0 = Y_A \Rightarrow Y_A = 0$

$\sum M_A = 0 = M_{RA} + M \Rightarrow M_{RA} = -M$

$\sum F_{y_1} = 0 = -Q_{y_1} \Rightarrow Q_{y_1} = 0$

$\sum M_{K_1} = 0 = -M + M_{x_1} \Rightarrow M_{x_1} = M$

$\sum F_z = 0 = -Z^1_A$

$\sum F_y = 0 = Y^1_A - 1 \Rightarrow Y^1_A = 1$

$\sum M_A = 0 = M^1_{RA} - 1 \cdot \ell \Rightarrow M^1_{RA} = \ell$

$\sum M_{K_1} = 0 = M^1_{x_1} + \ell - 1 \cdot z_1 \Rightarrow M^1_{x_1} = z_1 - \ell$

В начале участка → $z_1 = 0$: $M^1_{x_1} = -\ell$

В конце участка → $z_1 = \ell$: $M^1_{x_1} = 0$

$$V_B = \frac{M_x \cdot M^1_x}{E \cdot J_x} = \frac{1}{EJ_x} \cdot \left[(M \cdot \ell) \cdot \left(-\frac{\ell}{2}\right) \right] =$$

$$= -\frac{M\ell^2}{2EJ_x} < 0$$

точка перемещается против 1^{ca} силы т.е. вверх.