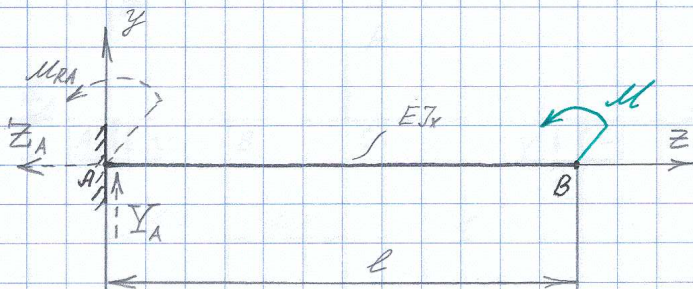


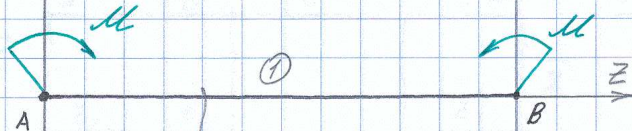
$$\theta_B = ?$$



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

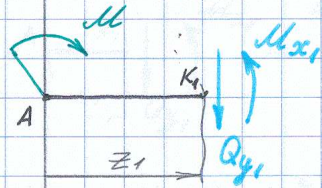
$$\sum F_y = 0 = Y_A \Rightarrow Y_A = 0$$

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

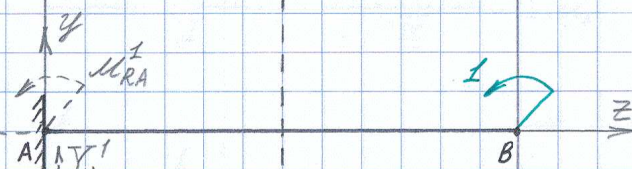
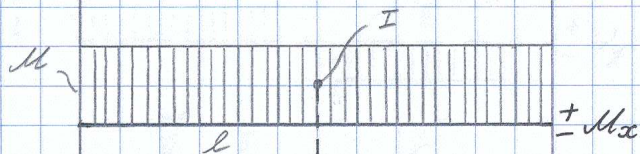


$$\sum F_{z_1} = 0 = -Q_{y_1} \Rightarrow Q_{y_1} = 0$$

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



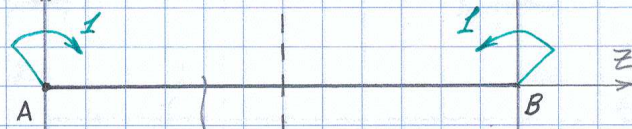
$$+Q_y$$



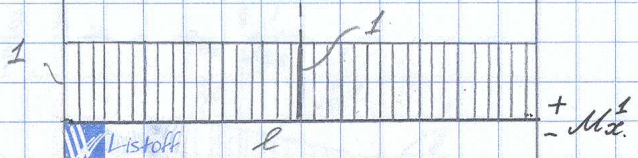
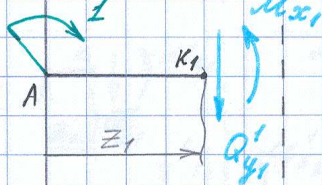
$$\sum F_z = 0 = -Z'_A \Rightarrow Z'_A = 0$$

$$\sum F_y = 0 = Y'_A \Rightarrow Y'_A = 0$$

$$\sum M_A = 0 = M'_{RA} + 1 \Rightarrow M'_{RA} = -1$$



$$\sum M_{x_1} = 0 = -1 + M'_{x_1} \Rightarrow M'_{x_1} = 1$$



$$\theta_B = \frac{M_x \cdot M'_x}{EI_x} = \frac{1}{EI_x} [(M \cdot l) \cdot 1] =$$

$$= \frac{Ml}{EI_x} > 0, \text{ значит в } B \text{ поворачивается в ту же сторону, что и единичный момент.}$$