

Реакции опор:

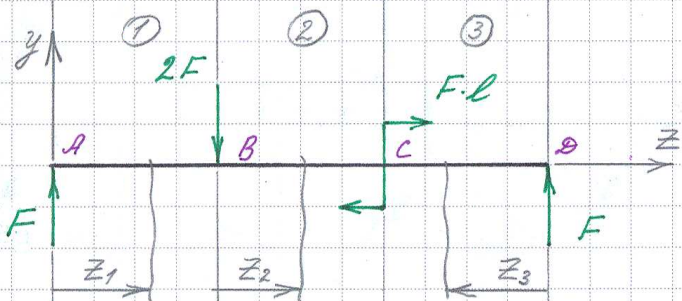
$$\sum F_z = 0 = -Z_A \Rightarrow Z_A = 0$$

$$\sum M_A = 0 = -2Fl - F \cdot l + Y_D \cdot 3l$$

$$Y_D = F$$

$$\sum M_D = 0 = -Y_A \cdot 3l + 2F \cdot 2l - F \cdot l$$

$$Y_A = F$$



РДЗУ:

$$\sum F_{y1} = 0 = F - Q_{y1} \Rightarrow Q_{y1} = F$$

$$\sum M_{x1} = 0 = -F \cdot z_1 + M_{x1}$$

$$M_{x1} = F \cdot z_1$$

$$z_1 = 0: M_{x1} = 0$$

$$z_1 = l: M_{x1} = Fl$$

$$\sum F_{y2} = 0 = F - 2F - Q_{y2} \Rightarrow Q_{y2} = -F$$

$$\sum M_{x2} = 0 = -F(l + z_2) + 2F \cdot z_2 + M_{x2}$$

$$M_{x2} = F(l - z_2)$$

$$z_2 = 0: M_{x2} = Fl$$

$$z_2 = l: M_{x2} = 0$$

$$\sum F_{y3} = 0 = Q_{y3} + F \Rightarrow Q_{y3} = -F$$

$$\sum M_{x3} = 0 = -M_{x3} + F \cdot z_3$$

$$M_{x3} = F \cdot z_3$$

$$z_3 = 0: M_{x3} = 0$$

$$z_3 = l: M_{x3} = Fl$$

