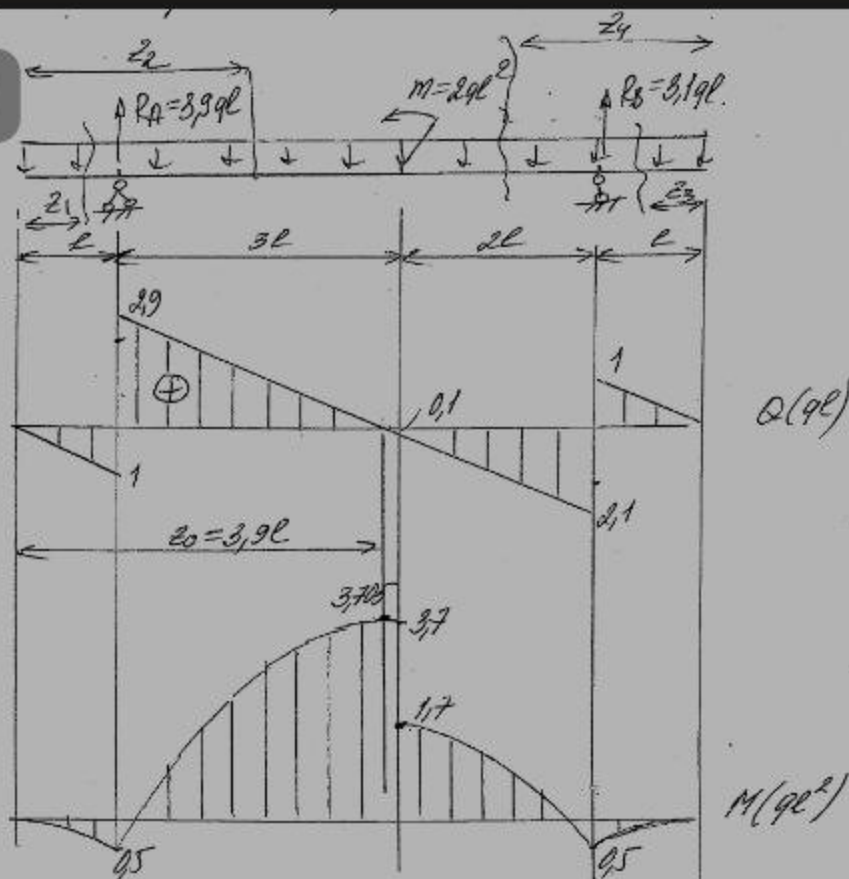




## Александр Малышев-4

9/10



1. Определим реакции.

$$\sum M_A = 0 \quad -q \cdot 7l \cdot 2.5l + M + R_B \cdot 5l = 0$$

$$R_B = \frac{1}{5l} [q \cdot 7l \cdot 2.5l - 2qL^2] = 0.1qL$$

$$\sum M_B = 0 \quad -R_A \cdot 5l + q \cdot 7l \cdot 2.5l + M = 0$$

$$R_A = \frac{1}{5l} [q \cdot 7l \cdot 2.5l + 2qL^2] = 3.9qL$$

$$\sum y = 0 \quad R_A - q \cdot 7l + R_B = 3.9qL - q \cdot 7l + 0.1qL = 0$$

2. Строим эпюры Q и M.

Уравнения  $0 \leq z_1 \leq l$ .

$$Q(z_1) = -q \cdot z_1 \quad \begin{cases} z_1 = 0 & Q(z_1) = 0 \\ z_1 = l & Q(z_1) = -qL \end{cases} \quad (10)$$

$$M(z_1) = -q \frac{z_1^2}{2} \quad \begin{cases} z_1 = 0 & M(z_1) = 0 \\ z_1 = l & M(z_1) = -0.5qL^2 \end{cases}$$

Уравнения  $l \leq z_2 \leq 4l$ .

$$Q(z_2) = -q \cdot z_2 + R_A = -q \cdot z_2 + 3.9qL \quad \begin{cases} z_2 = l & Q(z_2) = 2.9qL \\ z_2 = 4l & Q(z_2) = -0.1qL \end{cases}$$

$$Q(z_0) = -q \cdot z_0 + 3.9qL = 0 \quad z_0 = \frac{3.9qL}{q} = 3.9l$$

$$M(z_2) = -q \frac{z_2^2}{2} + 3.9qL \cdot (z_2 - l) \quad \begin{cases} z_2 = l & M(z_2) = -0.5qL^2 \\ z_2 = 4l & M(z_2) = 0 \end{cases}$$



Повернуть



Слайд-шоу



Поделиться..



Поиск