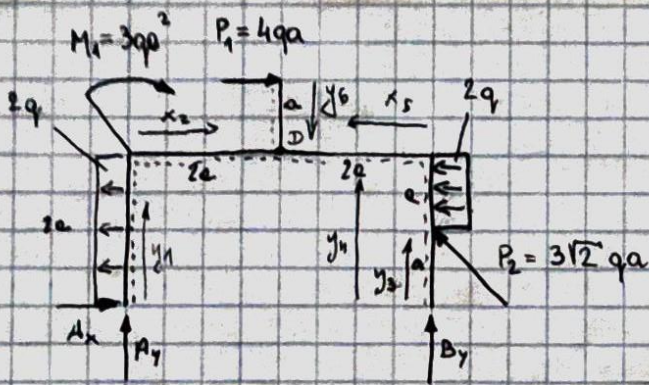




$$A_y + B_y + 3qa = 0$$

$$A_x - 4qa + 4qa - 2qa - 3qa = 0$$

$$-4qa^2 + 3qa^2 + 3aP_1 - 2qa \cdot 1.5a - 3qa \cdot 4a - 4aB_y - 3qa^2 = 0$$

$$-4qa^2 + 3qa^2 + 12qa^2 - 3qa^2 - 12qa^2 - 3qa^2 = 4aB_y \quad A_x = 5qa$$

$$B_y = -\frac{7}{4}qa$$

$$A_y = -3qa - B_y = -3qa + \frac{7}{4}qa$$

$$A_y = -\frac{5}{4}qa$$

$$\sum M^D: A_y 2a - A_x 2a + 4qa^2 + 3qa^2 + 4qa^2 + qa^2 + 3qa^2 - 6qa^2 - B_y 2a = 0$$

$$-2.5 - 10 + 11 + 4 - 6 + 3.5 = 0$$

$$0 = 0$$

$$Mg^I: -A_x y_1 + 2q \frac{y_1^2}{2} = -A_x y_1 + q y_1^2$$

$$T^I: -A_x + 2q y_1$$

$$Mg^I(2a) = -10qa^2 + 4qa^2 = -6qa^2$$

$$T^I(0) = -5qa \quad T^I(2a) = -5qa + 4qa = -qa$$

$$Mg^{II}: Mg^I(2a) + M_1 + A_y x_2$$

$$T^{II}: A_y = -\frac{5}{4}qa$$

$$Mg^{II}(0) = -3qa^2 \quad Mg^{II}(2a) = -3qa^2 - 2.5qa^2 = -5.5qa^2$$

$$Mg^{III}: 0 \quad T^{III}: 0$$

$$Mg^{IV}: -P_{2x}(x_4 - a) - 2q \frac{(x_4 - a)^2}{2} = -P_{2x}(x_4 - a) - q(x_4 - a)^2 \quad T^{IV}: P_{2x} + 2q(x_4 - a)$$

$$Mg^{IV}(2a) = -3qa^2 - qa^2 = -4qa^2$$

$$T^{IV}(a) = 3qa \quad T^{IV}(2a) = 3qa + 2qa = 5qa$$

$$Mg^V: Mg^{IV}(2a) + B_y x_5 + P_{2y} x_5$$

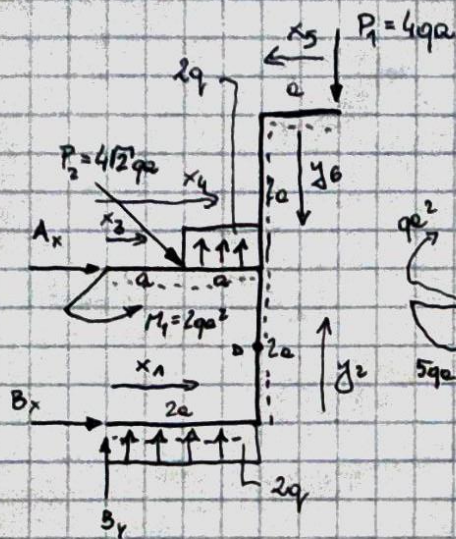
$$T^V: -B_y - P_{2y}$$

$$Mg^V(2a) = -4qa^2 - 3.5qa^2 + 6qa^2 = -1.5qa^2$$

$$T^V: \frac{7}{4}qa - 3qa = -1.25qa$$

$$Mg^VI: P_1 y_6 \quad T^VI: P_1 = 4qa$$

$$Mg^VI(a) = 4qa^2$$



$$A_x + B_x + P_{2x} = 0$$

$$B_y + 4qa + 2qa - P_{2y} - P_1 = 0$$

$$\sum M^A: -B_x 2a - 4qa^2 - M_1 + P_{2y} a - 3qa^2 + P_1 3a = 0$$

$$B_x 2a = -4qa^2 - 2qa^2 + 4qa^2 - 3qa^2 + 12qa^2$$

$$B_x = 3,5qa$$

$$A_x = -B_x - P_{2x} = -3,5qa - 4qa = -7,5qa$$

$$B_y = 2qa$$

$$\sum M^D: B_y 2a - B_x a + 4qa^2 + qa^2 + A_x a - M_1 + P_1 a = 0$$

$$4qa^2 - 3,5qa^2 + 4qa^2 + qa^2 - 7,5qa^2 - 2qa^2 + 4qa^2 = 0$$

$$0 = 0$$

$$Mg^I: B_y x_1 + qx_1^2$$

$$T^I: B_y + 2qx_1$$

$$Mg^I(2a): 4qa^2 + 4qa^2 = 8qa^2$$

$$T^I(0) = B_y = 2qa \quad T^I(2a) = 6qa$$

$$Mg^{II} = Mg^I(2a) - B_x y_2$$

$$T^{II} = -B_x = -3,5qa$$

$$Mg^{II}(2a) = 8qa^2 - 7qa^2 = qa^2$$

$$Mg^{III} = -M_1 = -2qa^2 \quad T^{III} = 0$$

$$Mg^{IV} = -M_1 - P_{2y}(x_4 - a) + q(x_4 - a)^2$$

$$T^{IV} = -P_{2y} + 2q(x_4 - a)$$

$$Mg^{IV}(2a) = -2qa^2 - 4qa^2 + qa^2 = -5qa^2$$

$$T^{IV}(a) = -4qa \quad T^{IV}(2a) = -4qa + 2qa = -2qa$$

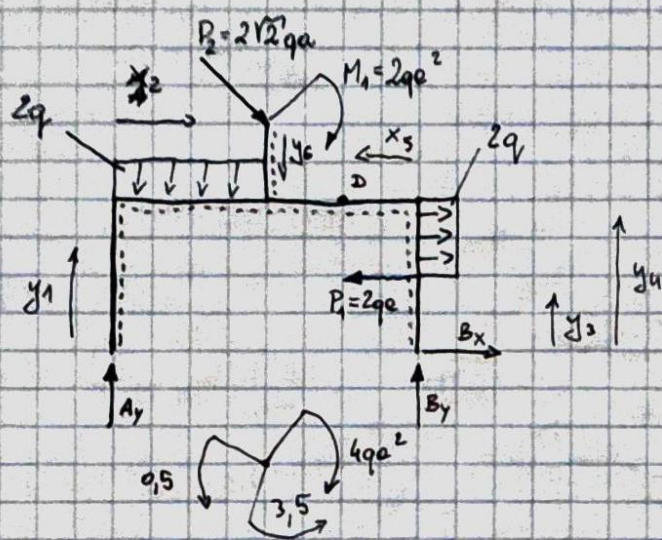
$$Mg^V = -P_1 x_5$$

$$T^V = P_1 = 4qa$$

$$Mg^V(a) = -4qa^2$$

$$Mg^{VI} = Mg^V(a) = -4qa^2$$

$$T^{VI} = 0$$



$$A_y + B_y - P_{2y} - 4qa = 0$$

$$B_x - P_1 + P_{2x} + 2qa = 0$$

$$\sum M^A: 4qa^2 + 4qa^2 + 6qa^2 + M_1 + 3qa^2 - 2qa^2 = 4aB_y$$

$$17qa^2 = 4aB_y$$

$$B_y = 4,25qa$$

$$A_y = 4qa + P_{2y} - B_y = 1,75qa$$

$$B_x = P_1 - P_{2x} - 2qa = -2qa$$

$$\sum M^D: 3aA_y - 8qa^2 + M_1 - qa^2 - B_y a - B_x 2a + P_1 a = 0$$

$$5,25qa^2 - 8qa^2 + 2qa^2 - qa^2 - 4,25qa^2 + 4qa^2 + 2qa^2 = 0$$

$$0 = 0$$

$$Mg^I: 0 \quad T^I: 0$$

$$Mg^{II}: A_y x_2 - qx_2^2 \quad T^{II}: A_y - 2qx_2$$

$$Mg^{II}(2a): 3,5qa^2 - 4qa^2 = -0,5qa^2 \quad T^{II}(0) = 1,75qa \quad T^{II}(2a) = 1,75qa - 4qa = -2,25qa$$

$$Mg^{III}: B_x y_3 \quad T^{III}: -B_x = 2qa$$

$$Mg^{III}(a) = -2qa^2$$

$$Mg^{IV}: B_x y_4 - P_1(x_4 - a) + 2q \frac{(x_4 - a)^2}{2} = B_x y_4 - P_1(x_4 - a) + q(x_4 - a)^2$$

$$Mg^{IV}(2a) = -4qa^2 - 2qa^2 + qa^2 = -5qa^2 \quad T^{IV}: -B_x + P_1 - 2q(x_4 - a)$$

$$T^{IV}(a) = 2qa + 2qa = 4qa$$

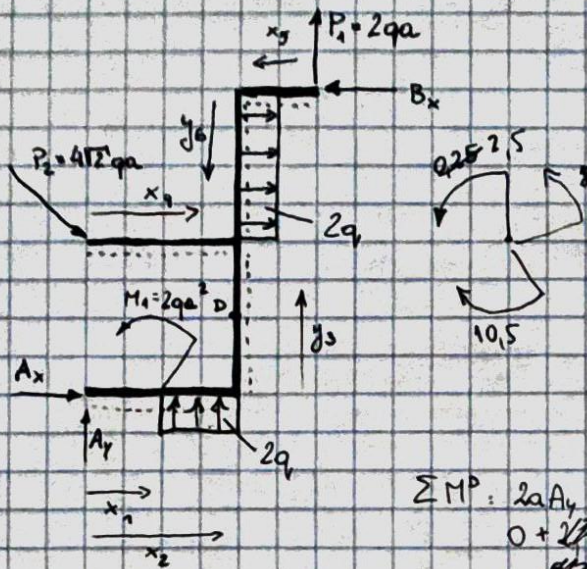
$$T^{IV}(2a) = 4qa - 2qa = 2qa$$

$$Mg^V: Mg^{IV}(2a) + B_y x_5 \quad T^V: -B_y = -4,25qa$$

$$Mg^V(2a) = -5qa^2 + 8,5qa^2 = 3,5qa^2$$

$$Mg^{VI}: -M_1 - P_{2x} y_6 \quad T^{VI}: P_{2x} = 2qa$$

$$Mg^{VI}(0) = -2qa^2 \quad Mg^{VI}(a) = -2qa^2 - 2qa^2 = -4qa^2$$



$$A_x + P_{2x} + 4qa - B_x = 0$$

$$A_y + 2qa - P_{2y} + P_1 = 0 \quad A_y = P_{2y} - P_1 - 2qa = 4 - 2 - 2 = 0$$

$$\sum M^A: -M_1 - 3qa^2 + 8qa^2 + 12qa^2 - 4aB_x + 3aP_1 = 0$$

$$4aB_x = -2qa^2 - 3qa^2 + 20qa^2 + 6qa^2$$

$$4aB_x = 9qa^2 \quad B_x = 2.25qa$$

$$A_x = B_x - P_{2x} - 4qa = 2.25qa - 8qa = -5.75qa$$

$$\sum M^B: 2aA_y - A_xa - M_1 + qa^2 + P_{2x}a - P_{2y}2a + 8qa^2 - 2qa^2 - 3aB_x = 0$$

$$0 + 2.25 - 2 + 1 + 4 - 8 + 8 - 2 - 6.75 = 0$$

$$0 = 0$$

$$A_x = -5.75qa \quad B_x = 2.25qa \quad A_y = 0$$

$$Mg^I: A_y x_1 = 0 \quad T^I = A_y = 0$$

$$Mg^{II}: A_y x_2 - M_1 + q(x_2 - a)^2$$

$$Mg^{II}(2a) = -2qa^2 + qa^2 = -qa^2$$

$$Mg^{III} = Mg^{II}(2a) - A_x y_3 = -qa^2 + 11.5qa^2 = 10.5qa^2$$

$$Mg^{IV} = -P_{2x} x_4$$

$$Mg^{IV}(2a) = -8qa^2$$

$$Mg^V = P_1 x_5$$

$$Mg^V(a) = 2qa^2 \quad T^V = -P_1 = -2qa$$

$$Mg^{VI} = Mg^V(a) - qy_6^2 + B_x y_6 \quad T^{VI} = 2qy - B_x \quad T^{VI}(0) = -B_x = -2.25qa$$

$$Mg^{VI}(2a) = 2qa^2 - 4qa^2 + 4.50qa^2 = 2.5qa^2$$