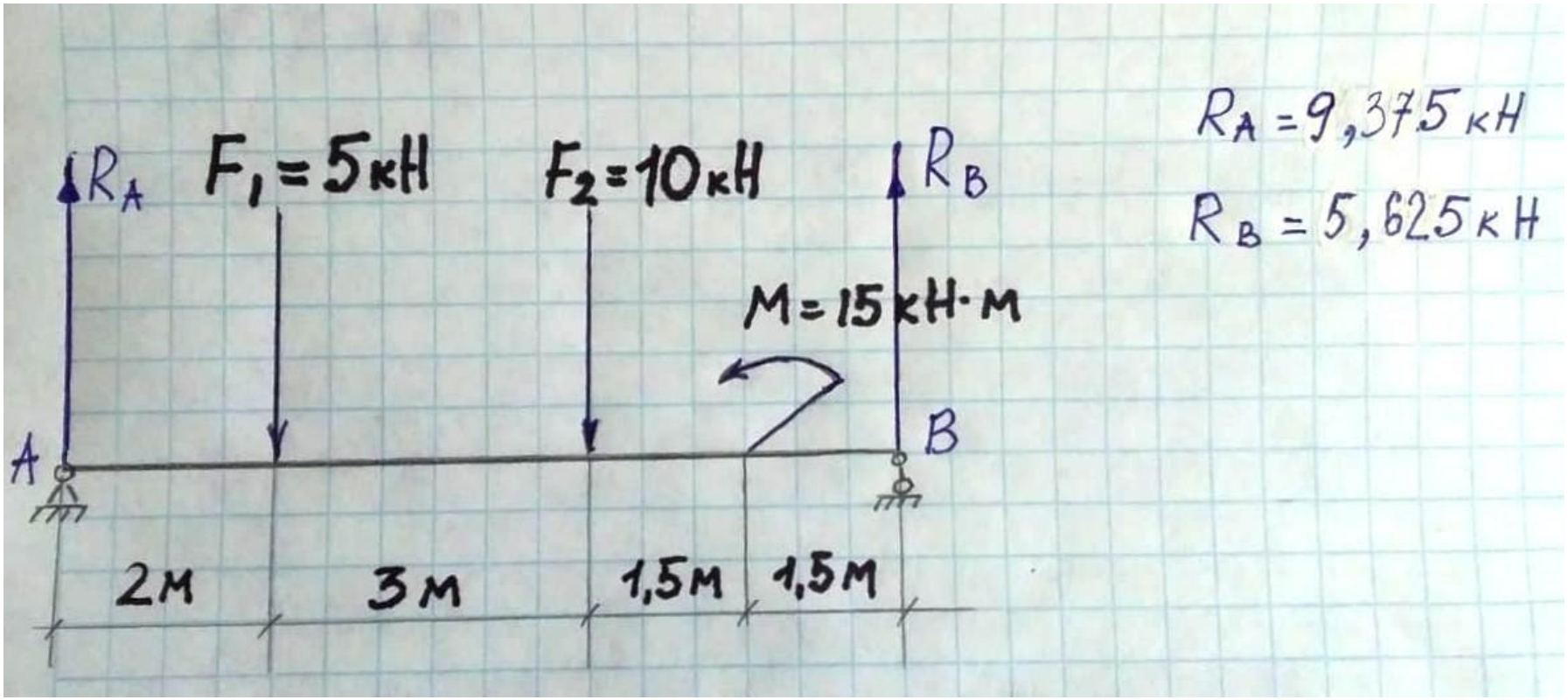


$R_A = 9{,}375$ кН

$R_B = 5{,}625$ кН

$$\Sigma X = 0$$

$$-F_1 \cdot 2 - F_2 \cdot 5 + R_B \cdot 8 + 15 = 0$$

$$-5 \cdot 2 - 10 \cdot 5 + R_B \cdot 8 + 15 = 0$$

$$-10 - 50 + R_B \cdot 8 + 15 = 0$$

$$R_B \cdot 8 - 45 = 0$$

$$R_B \cdot 8 = 45$$

$$R_B = 45 / 8 = \underline{5,625 \text{ кН}}$$

Сумма моментов относительно т. В

$$\sum y = 0$$

$$+M + F_2 \cdot 3 + F_1 \cdot 6 - R_A \cdot 8 = 0$$

$$15 + 10 \cdot 3 + 5 \cdot 6 - R_A \cdot 8 = 0$$

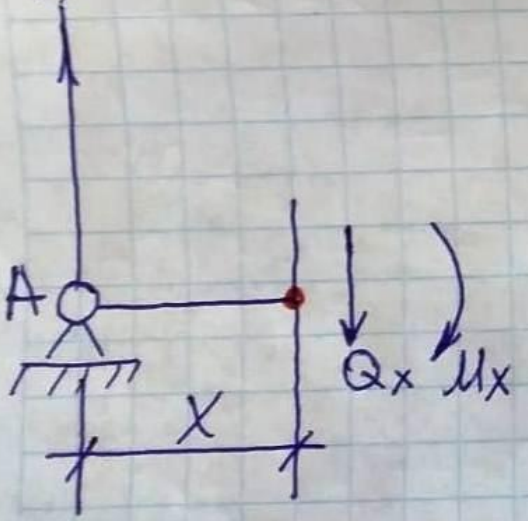
$$15 + 30 + 30 - R_A \cdot 8 = 0$$

$$75 - R_A \cdot 8 = 0$$

$$R_A \cdot 8 = 75$$

$$R_A = 75 / 8 = \underline{9{,}375 \text{ кН}}$$

$R_A = 9{,}375\ кН$



Qx
↑+ ↓−

$Q_x = R_A =$

$9{,}375\ кН$

Mx
−↺ ↻+

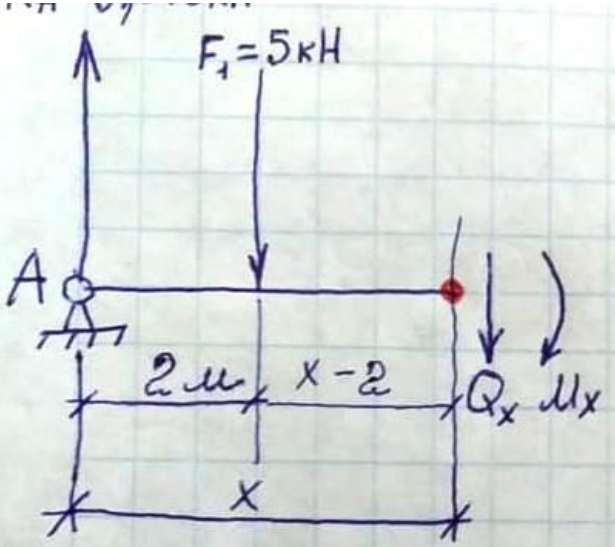
$M_x = R_A \cdot X =$

$\boxed{9{,}375 \cdot X}$

$X=0 \quad M_x = 9{,}375 \cdot 0 = 0$

$X=1 \quad M_x = 9{,}375 \cdot 1 = 9{,}375\ кН$

$X=2 \quad M_x = 9{,}375 \cdot 2 = \underline{18{,}75\ кН}$



$Q_x = R_A - F_1 =$

$= 9,375 - 5 =$

$4,375\ кН$

$M_x = R_A \cdot x - F_1 \cdot (x-2) =$

$= 9,375 \cdot x - 5(x-2) =$

$9,375 \cdot x - 5x + 10 =$

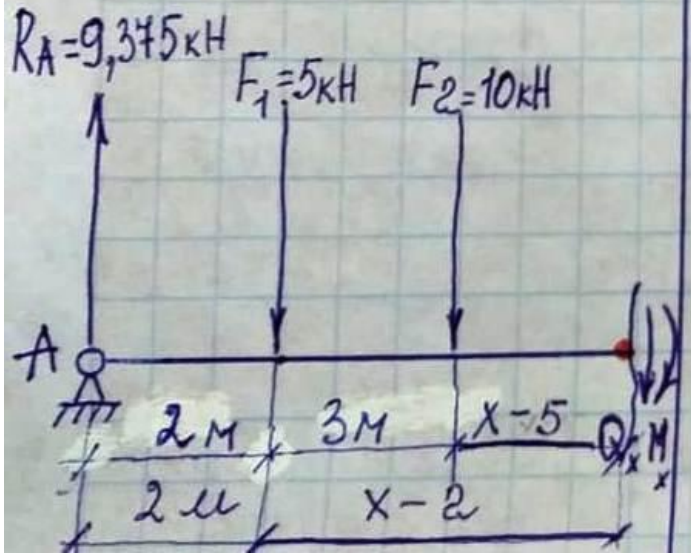
$= \boxed{10 + 4,375 \cdot x}$

$x=2 \quad M_x = 10 + 4,375 \cdot 2 = 18,75\ кН$

$x=3 \quad M_x = 10 + 4,375 \cdot 3 = 23,125\ кН$

$x=4 \quad M_x = 10 + 4,375 \cdot 4 = 27,5\ кН$

$x=5 \quad M_x = 10 + 4,375 \cdot 5 = 31,875\ кН$



$Q_x = R_A - F_1 - F_2 =$

$= 9,375 - 5 - 10 =$

$= -5,625\ кН$

$M_x = R_A \cdot x - F_1(x-2) - F_2(x-5)$

$= 9,375 \cdot x - 5(x-2) - 10(x-5) =$

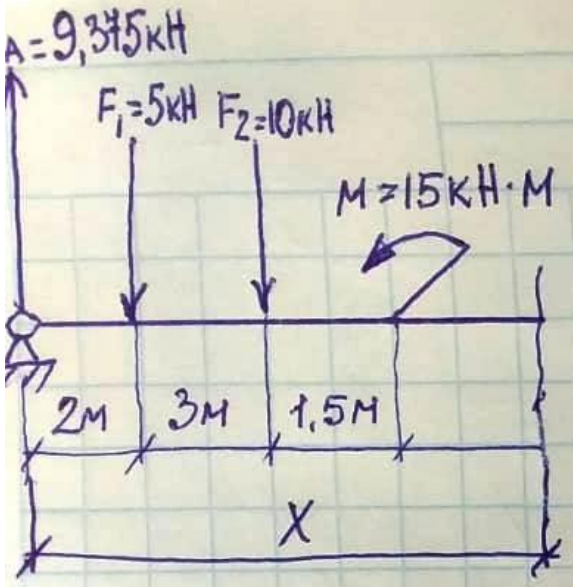
$9,375 \cdot x - 5 \cdot x + 10 - 10 \cdot x + 50 =$

$\boxed{60 - 5,625 \cdot x}$

$x=5 \quad M_x = 60 - 5,625 \cdot 5 = 31,875\ кН$

$x=6 \quad M_x = 60 - 5,625 \cdot 6 = 26,25\ кН$

$x=6,5 \quad M_x = 60 - 5,625 \cdot 6,5 = 23,44\ кН$



$Q_x =$

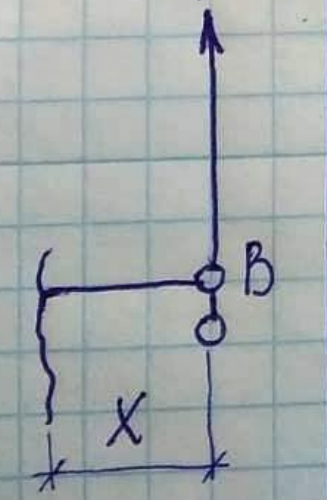
$-5,625$ кН

$M_x = R_A \cdot X - F_1(x-2) - F_2(x-5) - 15$

$X = 6,5 \quad M_x = 8,44$

$X = 7 \quad M_x = 5,625$

$X = 8 \quad M_x = 0$



↑ − ↓ +

$Q_x = -5,625$ кН

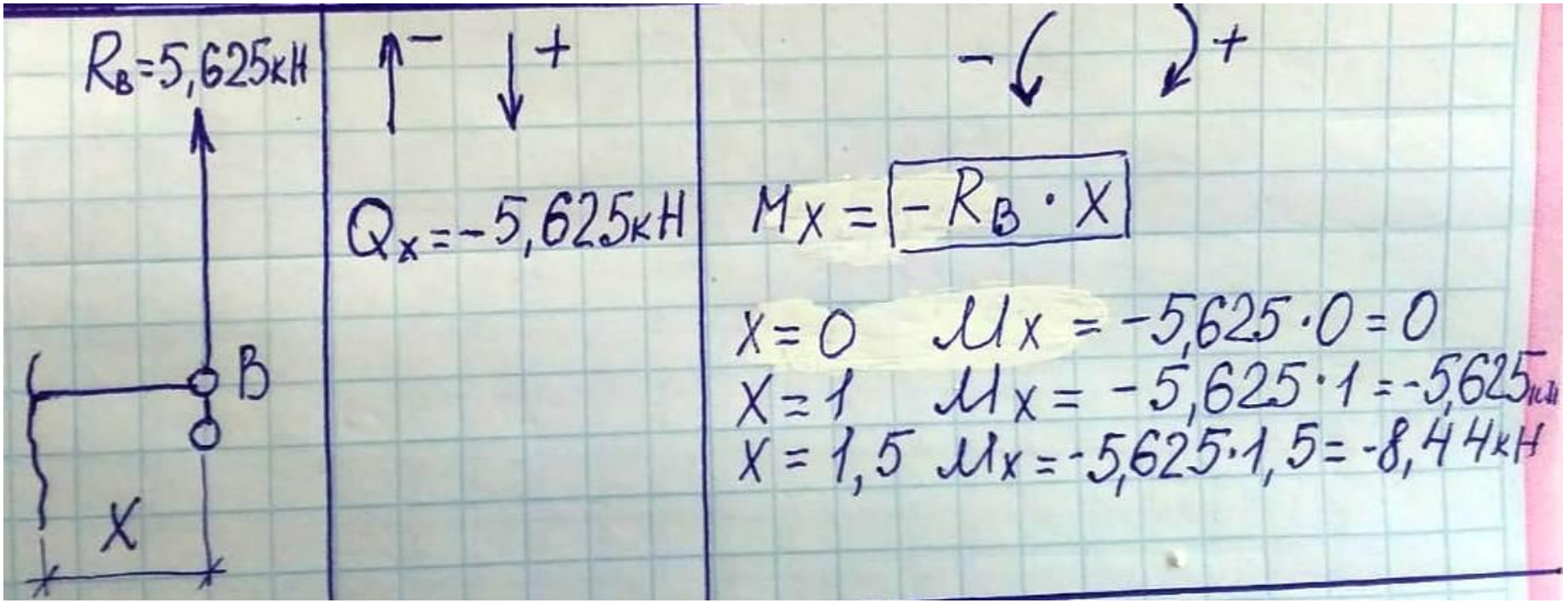
− ↶ ↷ +

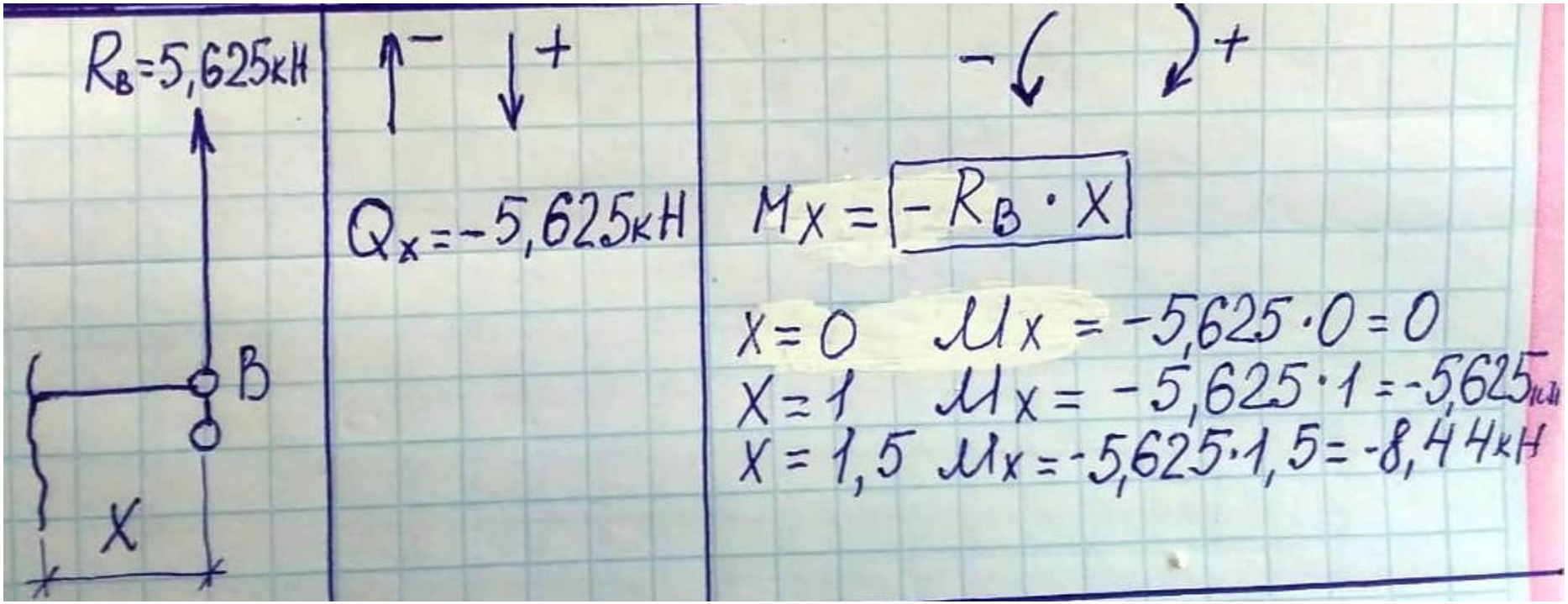
$M_x = \boxed{-R_B \cdot X}$

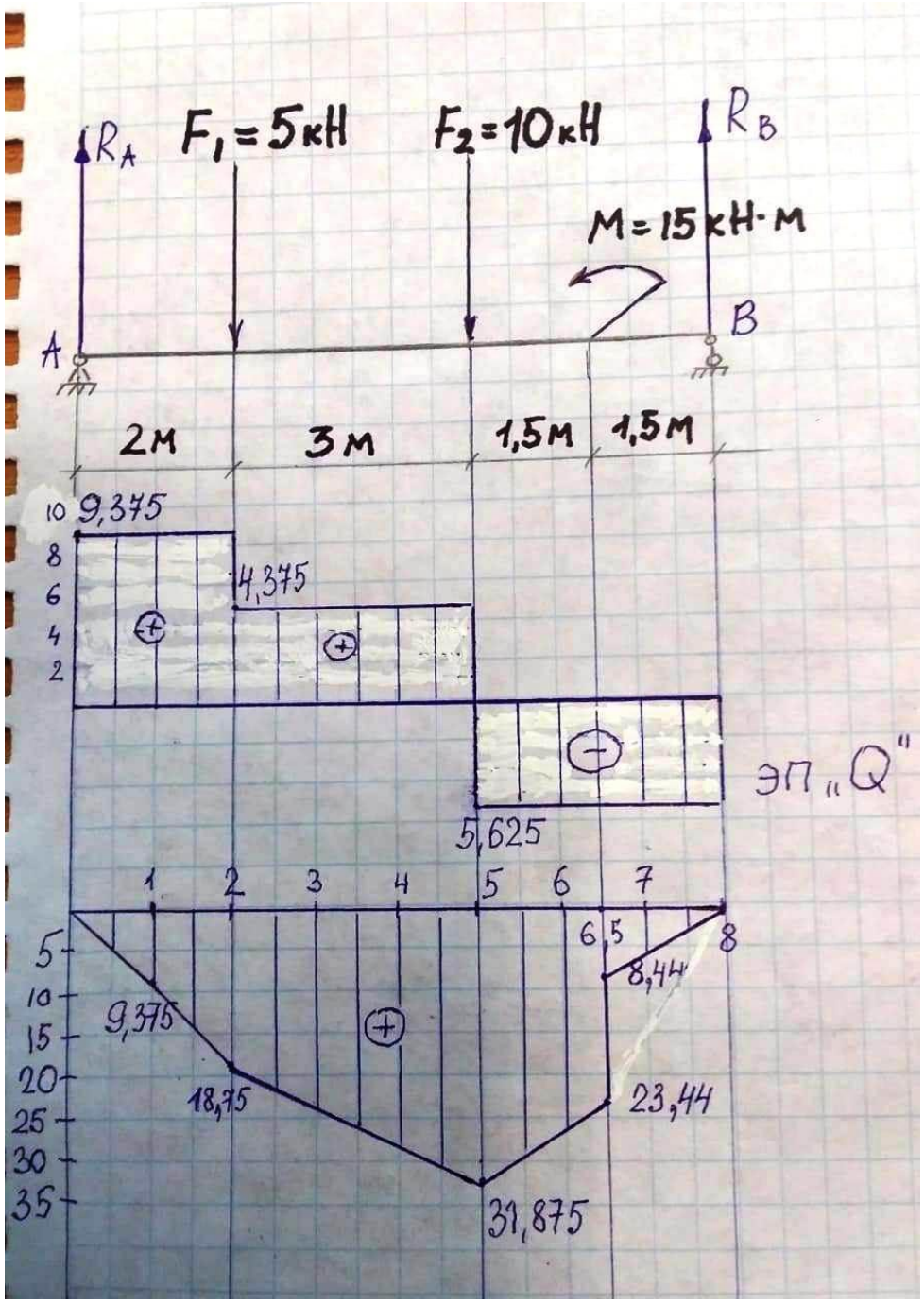
$X = 0 \quad M_x = -5,625 \cdot 0 = 0$

$X = 1 \quad M_x = -5,625 \cdot 1 = -5,625$ кН

$X = 1,5 \quad M_x = -5,625 \cdot 1,5 = -8,44$ кН


$R_B = 5{,}625$ кН
B
X
↑ −
↓ +
$Q_x = -5{,}625$ кН
− ↺
↻ +
$M_x = \boxed{-R_B \cdot X}$
$X = 0 \quad M_x = -5{,}625 \cdot 0 = 0$
$X = 1 \quad M_x = -5{,}625 \cdot 1 = -5{,}625$ кНм
$X = 1{,}5 \quad M_x = -5{,}625 \cdot 1{,}5 = -8{,}44$ кН


$R_B = 5{,}625$ кН
B
X
$Q_x = -5{,}625$ кН
$M_x = -R_B \cdot X$
$X = 0 \quad M_x = -5{,}625 \cdot 0 = 0$
$X = 1 \quad M_x = -5{,}625 \cdot 1 = -5{,}625$ кНм
$X = 1{,}5 \quad M_x = -5{,}625 \cdot 1{,}5 = -8{,}44$ кН


R_A
$F_1 = 5$кН
$F_2 = 10$кН
R_B
$M = 15$ кН·м
A
B
2м
3м
1,5м
1,5м
9,375
4,375
5,625
эп „Q"
1
2
3
4
5
6
7
8
9,375
18,75
31,875
8,44
23,44