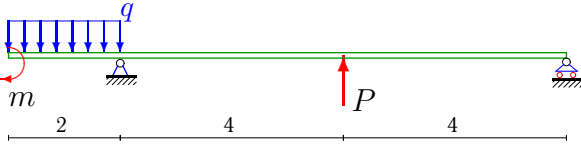


Балка

Построить эпюры моментов и перерезывающих сил в балке. Найти сечение балки с максимальным моментом. Определить прогиб Δy балки в точке приложения силы P .

Задача М4.1.

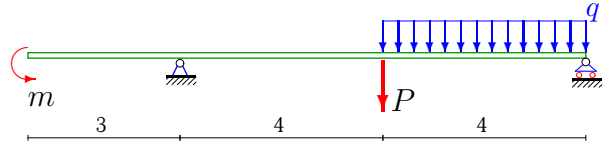
2



$$P = 5 \text{ кН}, m = 40 \text{ кНм}, q = 4 \text{ кН/м.}$$

Задача М4.2.

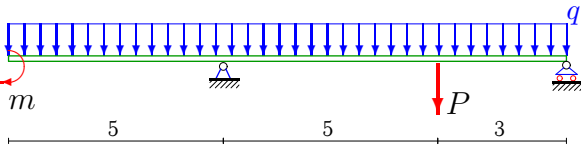
2



$$P = 4 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м.}$$

Задача М4.3.

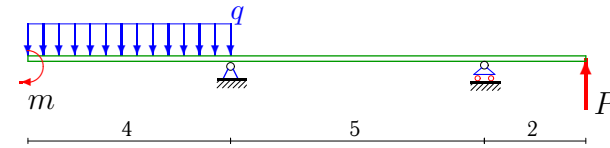
2



$$P = 3 \text{ кН}, m = 40 \text{ кНм}, q = 4 \text{ кН/м.}$$

Задача М4.4.

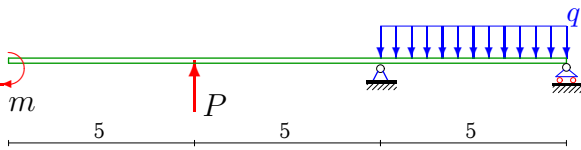
2



$$P = 8 \text{ кН}, m = 40 \text{ кНм}, q = 4 \text{ кН/м.}$$

Задача М4.5.

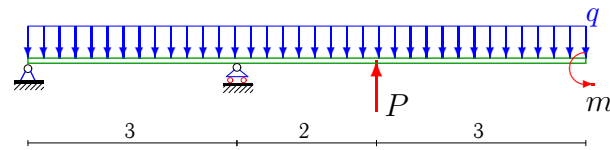
2



$$P = 8 \text{ кН}, m = 10 \text{ кНм}, q = 6 \text{ кН/м.}$$

Задача М4.6.

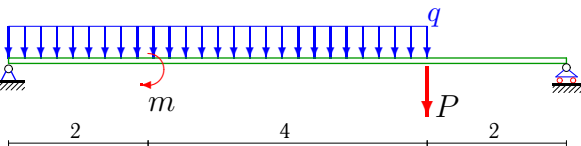
2



$$P = 3 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м.}$$

Задача М4.7.

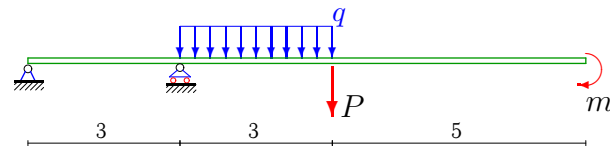
2



$$P = 2 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м.}$$

Задача М4.8.

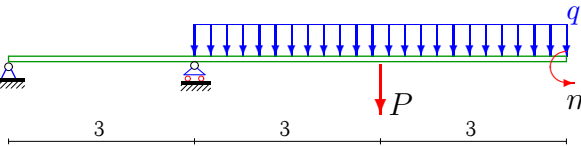
2



$$P = 4 \text{ кН}, m = 10 \text{ кНм}, q = 6 \text{ кН/м.}$$

Задача М4.9.

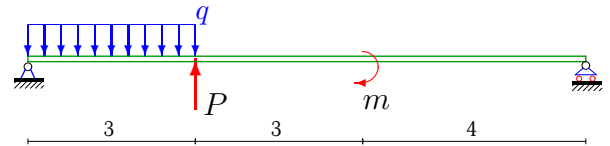
2



$$P = 3 \text{ кН}, m = 10 \text{ кНм}, q = 7 \text{ кН/м.}$$

Задача М4.10.

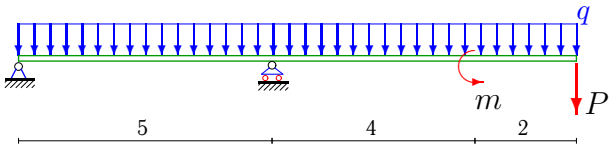
2



$$P = 4 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м.}$$

Задача М4.11.

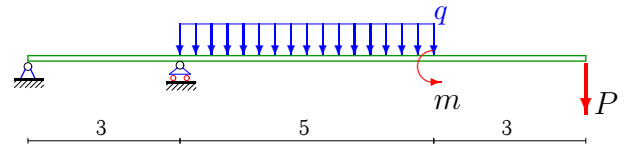
2



$$P = 3 \text{ кН}, m = 10 \text{ кНм}, q = 7 \text{ кН/м}.$$

Задача М4.12.

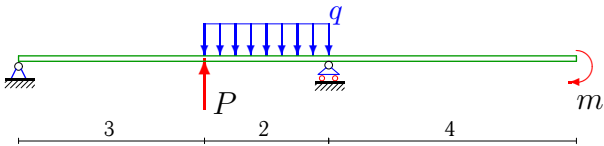
2



$$P = 3 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м}.$$

Задача М4.13.

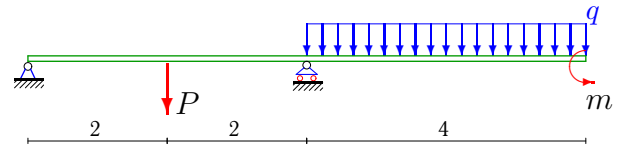
2



$$P = 7 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м}.$$

Задача М4.14.

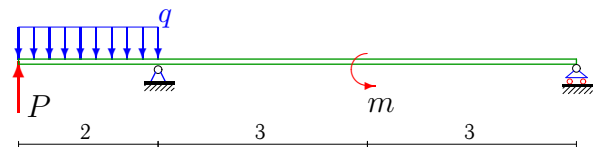
2



$$P = 3 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м}.$$

Задача М4.15.

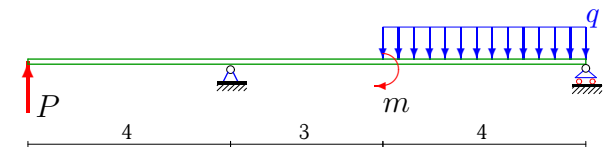
2



$$P = 2 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м}.$$

Задача М4.16.

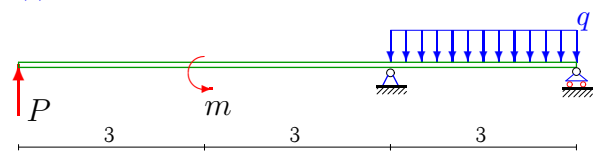
2



$$P = 9 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м}.$$

Задача М4.17.

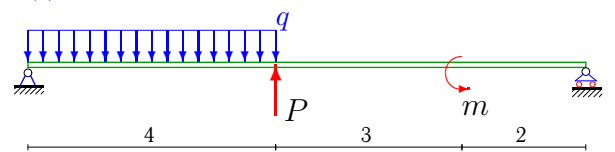
2



$$P = 6 \text{ кН}, m = 10 \text{ кНм}, q = 7 \text{ кН/м}.$$

Задача М4.18.

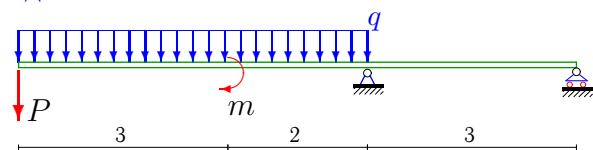
2



$$P = 6 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м}.$$

Задача М4.19.

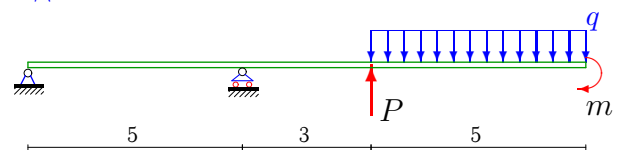
2



$$P = 3 \text{ кН}, m = 10 \text{ кНм}, q = 6 \text{ кН/м}.$$

Задача М4.20.

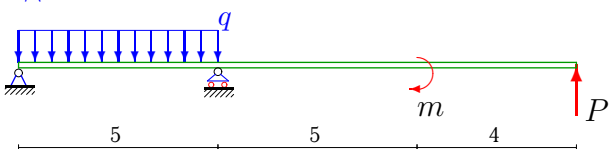
2



$$P = 7 \text{ кН}, m = 40 \text{ кНм}, q = 4 \text{ кН/м}.$$

Задача М4.21.

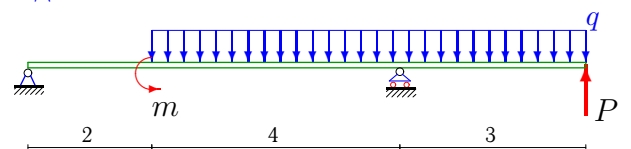
2



$$P = 9 \text{ кН}, m = 10 \text{ кНм}, q = 6 \text{ кН/м}.$$

Задача М4.22.

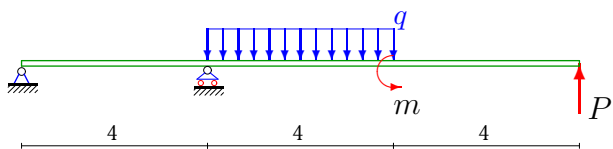
2



$$P = 4 \text{ кН}, m = 10 \text{ кНм}, q = 7 \text{ кН/м}.$$

Задача М4.23.

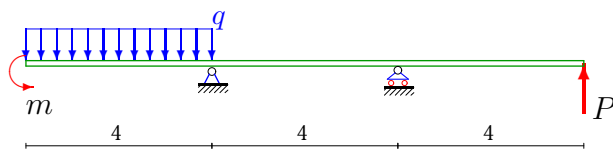
2



$P = 8 \text{ кН}, m = 20 \text{ кНм}, q = 6 \text{ кН/м}.$

Задача М4.24.

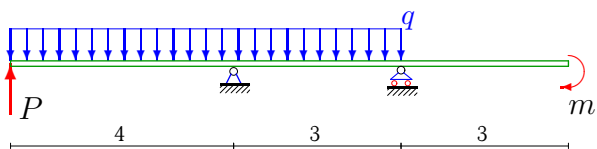
2



$P = 9 \text{ кН}, m = 10 \text{ кНм}, q = 7 \text{ кН/м}.$

Задача М4.25.

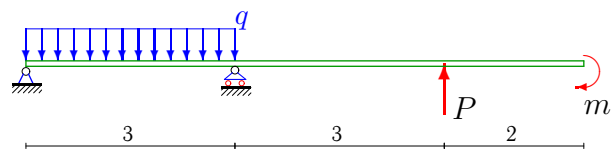
2



$P = 7 \text{ кН}, m = 10 \text{ кНм}, q = 6 \text{ кН/м}.$

Задача М4.26.

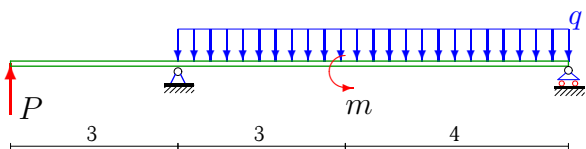
2



$P = 6 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м}.$

Задача М4.27.

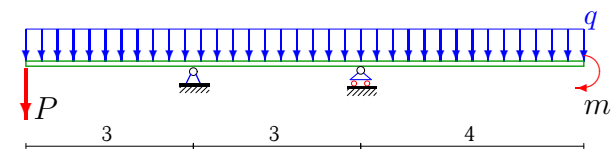
2



$P = 6 \text{ кН}, m = 10 \text{ кНм}, q = 7 \text{ кН/м}.$

Задача М4.28.

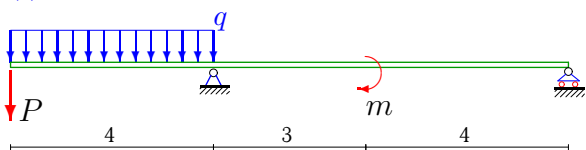
2



$P = 4 \text{ кН}, m = 40 \text{ кНм}, q = 4 \text{ кН/м}.$

Задача М4.29.

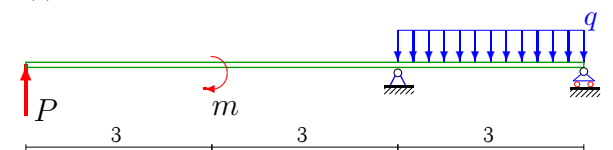
2



$P = 6 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м}.$

Задача М4.30.

2

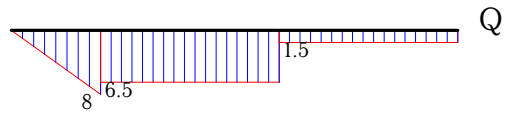
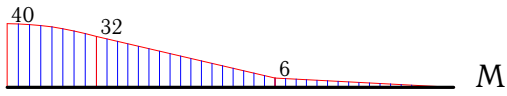


$P = 6 \text{ кН}, m = 20 \text{ кНм}, q = 5 \text{ кН/м}.$

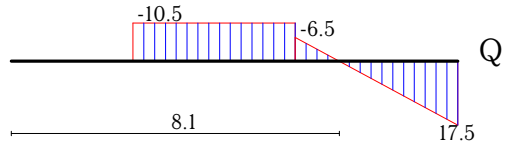
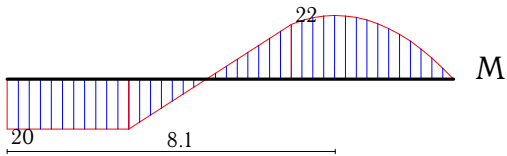
M4 Ответы.
Балка

25.02.2013

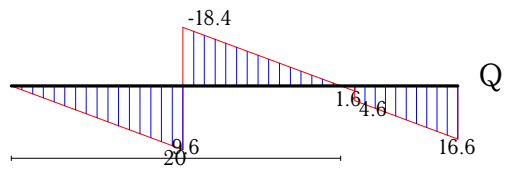
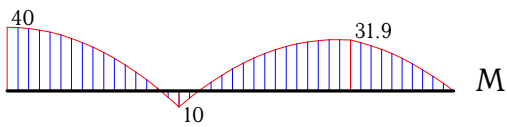
Задача 1.



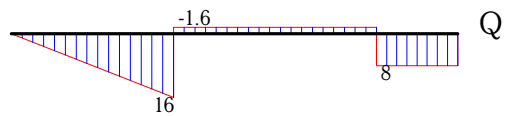
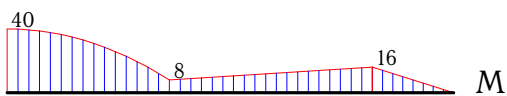
Задача 2.



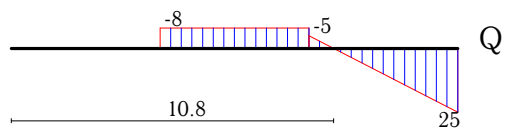
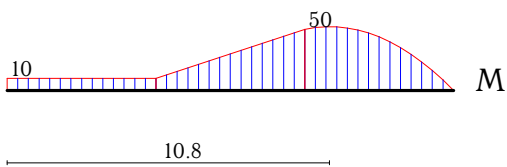
Задача 3.



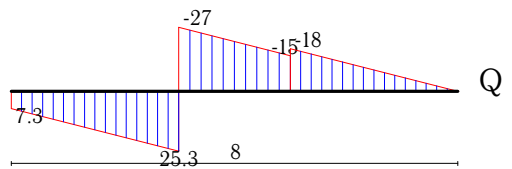
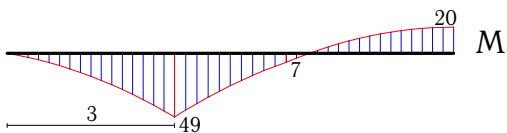
Задача 4.



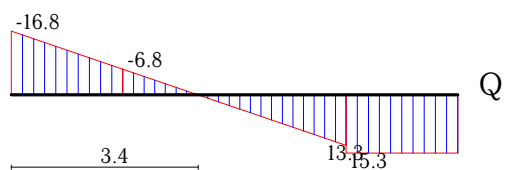
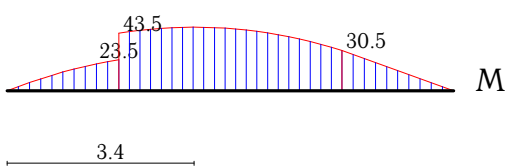
Задача 5.



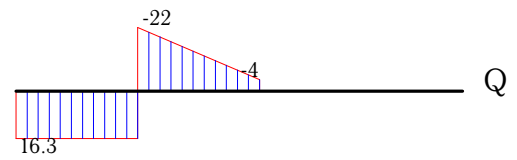
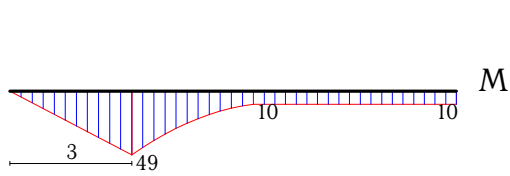
Задача 6.



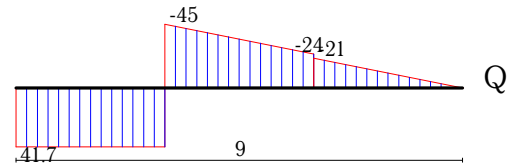
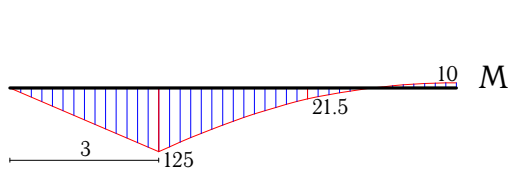
Задача 7.



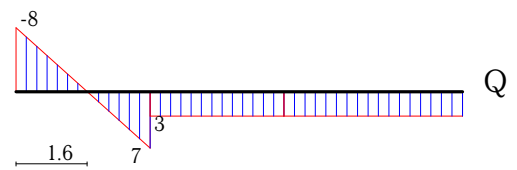
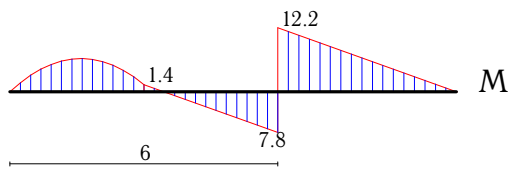
Задача 8.



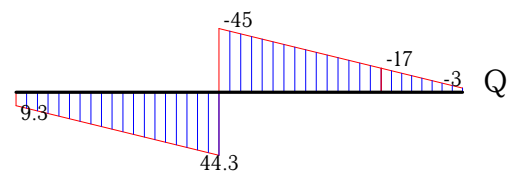
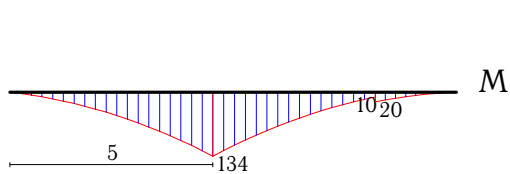
Задача 9.



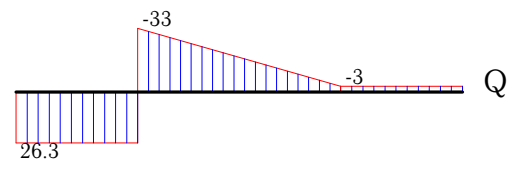
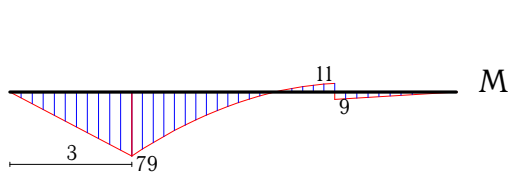
Задача 10.



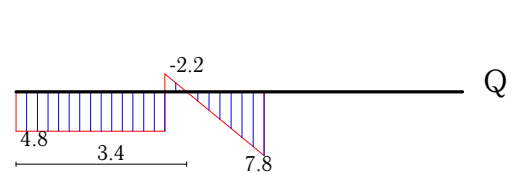
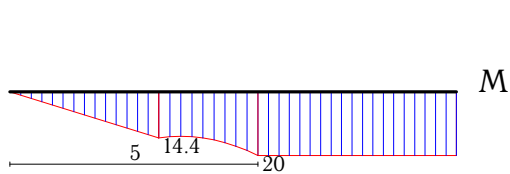
Задача 11.



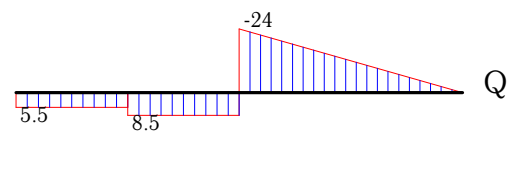
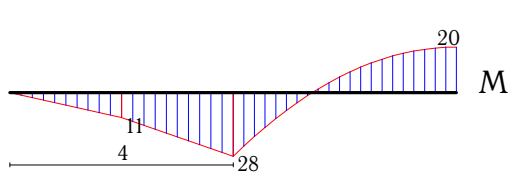
Задача 12.



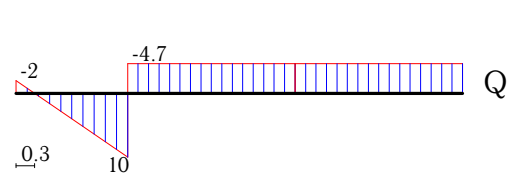
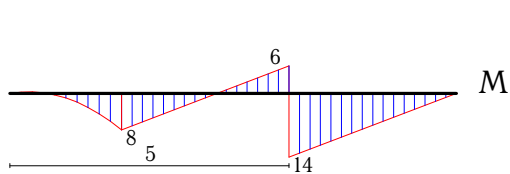
Задача 13.



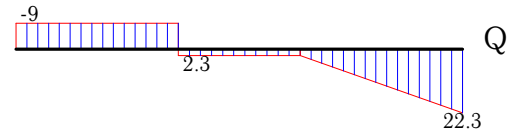
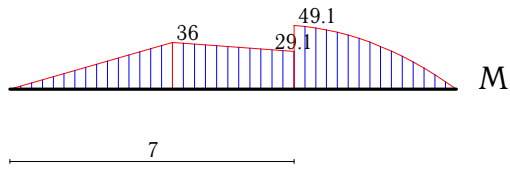
Задача 14.



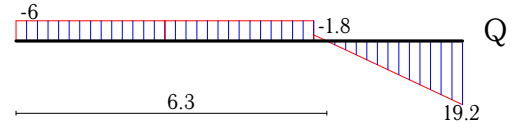
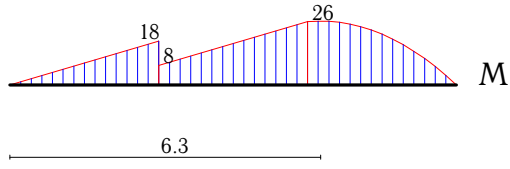
Задача 15.



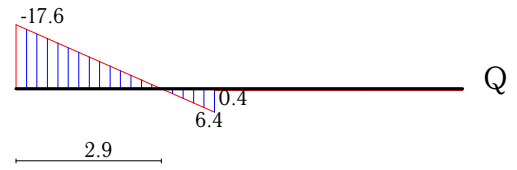
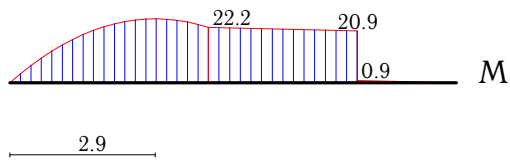
Задача 16.



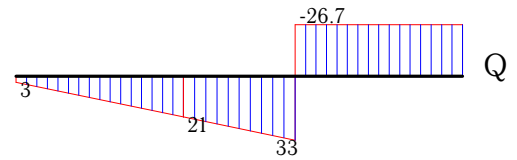
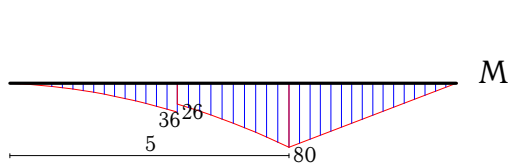
Задача 17.



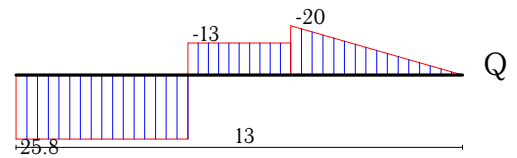
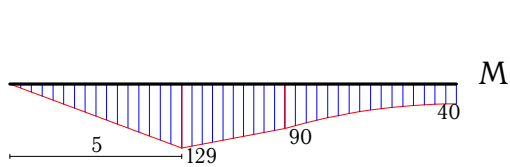
Задача 18.



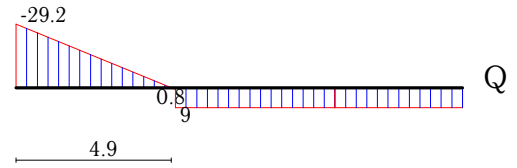
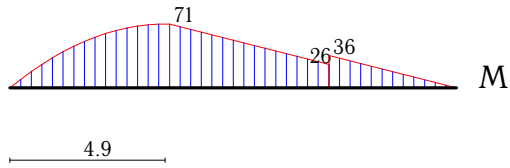
Задача 19.



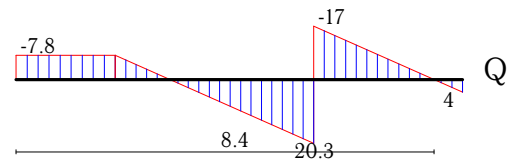
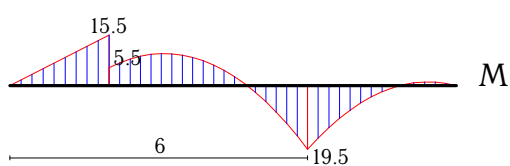
Задача 20.



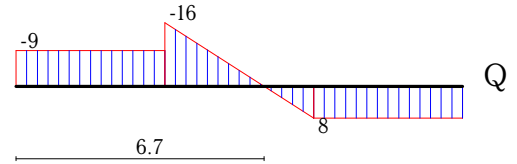
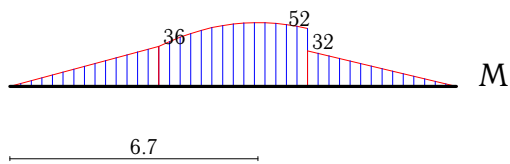
Задача 21.



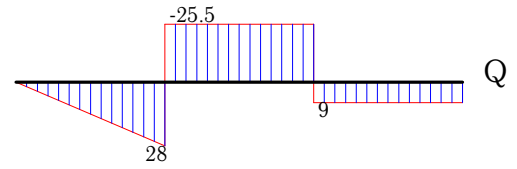
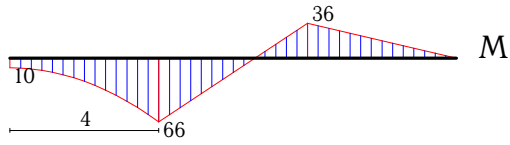
Задача 22.



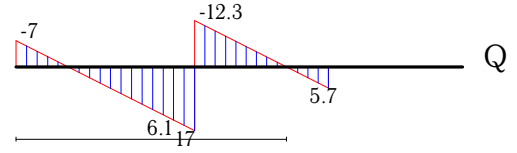
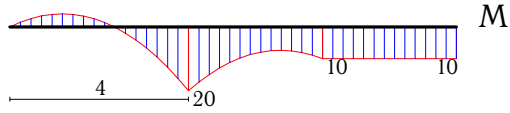
Задача 23.



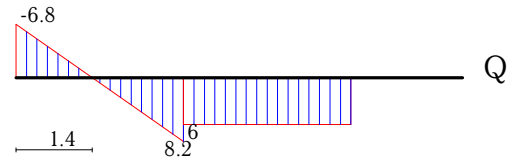
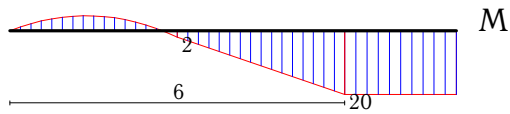
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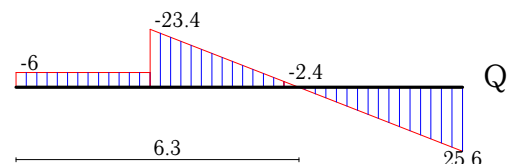
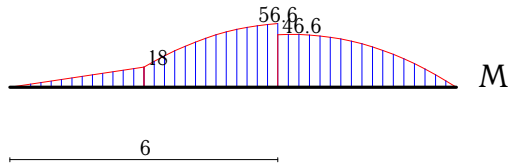
Задача 25.



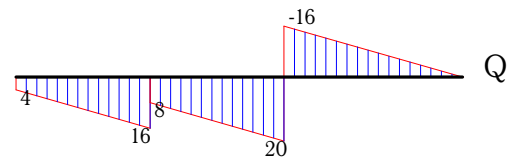
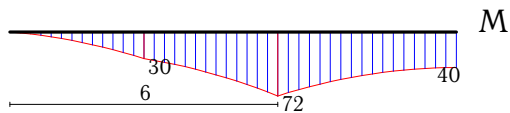
Задача 26.



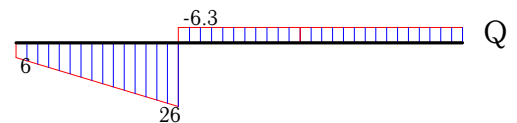
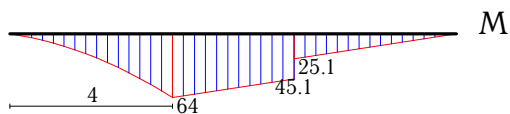
Задача 27.



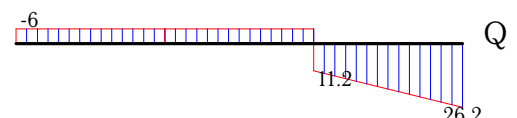
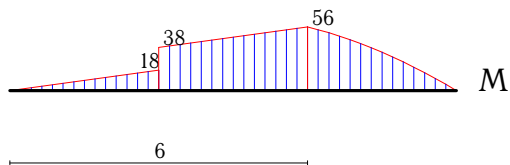
Задача 28.



Задача 29.



Задача 30.



№	R_A	R_B	$\max M $	x_*	$EI\Delta y$
1	1.50	1.50	40.00	0.00	-74.67
2	10.50	17.50	25.52	8.08	-122.67
3	38.38	16.63	40.00	0.00	-191.25
4	17.60	-9.60	40.00	0.00	88.00
5	-3.00	25.00	52.08	10.83	1031.25
6	-7.33	52.33	49.00	3.00	-150.50
7	16.75	15.25	48.06	3.35	-209.50
8	-16.33	38.33	49.00	3.00	-288.75
9	-41.67	86.67	125.00	3.00	-758.63
10	7.95	3.05	12.20	6.00	-20.26
11	-9.30	89.30	134.00	5.00	-2311.25
12	-26.33	59.33	79.00	3.00	-1437.75
13	-4.80	7.80	20.00	5.00	34.80
14	-5.50	32.50	28.00	4.00	24.00
15	14.67	-4.67	14.00	5.00	-28.67
16	-11.29	22.29	49.14	7.00	682.29
17	-4.17	19.17	26.24	6.26	500.25
18	17.56	0.44	25.68	2.93	-202.96
19	59.67	-26.67	80.00	5.00	-913.75
20	-25.80	38.80	129.00	5.00	-1167.00
21	29.20	-8.20	71.05	4.87	3208.25
22	7.75	37.25	19.50	6.00	-22.54
23	9.00	7.00	57.33	6.67	1781.33
24	53.50	-34.50	66.00	4.00	208.00
25	29.33	5.67	20.00	4.00	-115.67
26	6.83	2.17	20.00	6.00	-25.13
27	17.36	25.64	56.57	6.00	480.84
28	8.00	36.00	72.00	6.00	-261.00
29	32.29	-6.29	64.00	4.00	-887.24
30	-17.17	26.17	56.00	6.00	1071.75