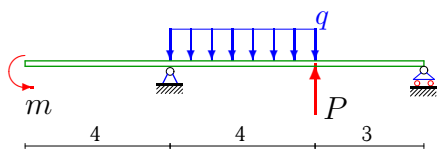


Балка

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

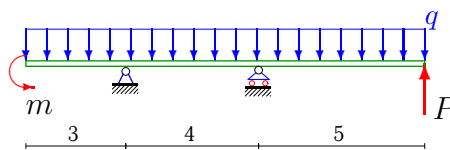
Задача 24.1



$$P = 2 \text{ кН}, m = 10 \text{ кНм}, q = 24 \text{ кН/м}.$$

24.3

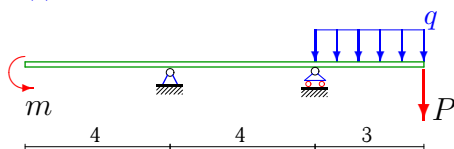
Задача 24.2



$$P = 10 \text{ кН}, m = 30 \text{ кНм}, q = 32 \text{ кН/м}.$$

24.3

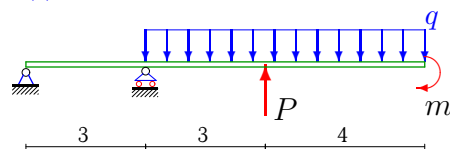
Задача 24.3



$$P = 11 \text{ кН}, m = 30 \text{ кНм}, q = 32 \text{ кН/м}.$$

24.3

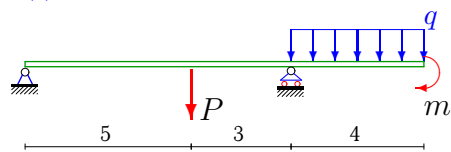
Задача 24.4



$$P = 1 \text{ кН}, m = 20 \text{ кНм}, q = 12 \text{ кН/м}.$$

24.3

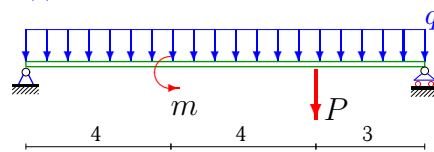
Задача 24.5



$$P = 12 \text{ кН}, m = 20 \text{ кНм}, q = 12 \text{ кН/м}.$$

24.3

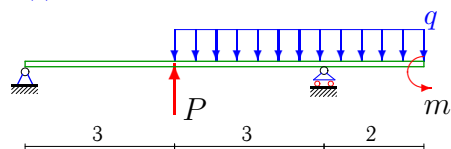
Задача 24.6



$$P = 10 \text{ кН}, m = 23 \text{ кНм}, q = 20 \text{ кН/м}.$$

24.3

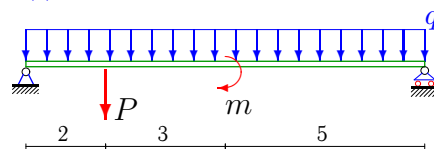
Задача 24.7



$$P = 1 \text{ кН}, m = 30 \text{ кНм}, q = 32 \text{ кН/м}.$$

24.3

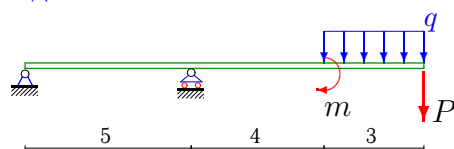
Задача 24.8



$$P = 4 \text{ кН}, m = 30 \text{ кНм}, q = 8 \text{ кН/м}.$$

24.3

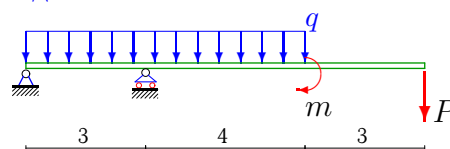
Задача 24.9



$$P = 9 \text{ кН}, m = 20 \text{ кНм}, q = 12 \text{ кН/м}.$$

24.3

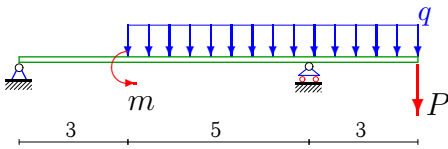
Задача 24.10



$$P = 18 \text{ кН}, m = 30 \text{ кНм}, q = 8 \text{ кН/м}.$$

24.3

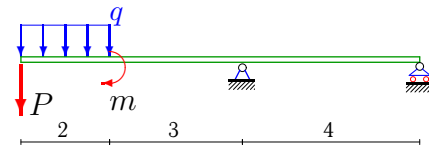
Задача 24.11



$P = 15 \text{ кН}, m = 30 \text{ кНм}, q = 32 \text{ кН/м}.$

24.3

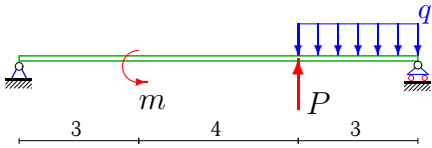
Задача 24.12



$P = 1 \text{ кН}, m = 10 \text{ кНм}, q = 16 \text{ кН/м}.$

24.3

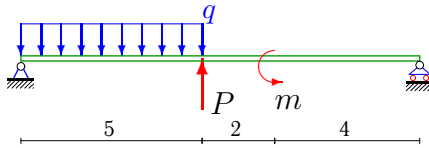
Задача 24.13



$P = 10 \text{ кН}, m = 40 \text{ кНм}, q = 36 \text{ кН/м}.$

24.3

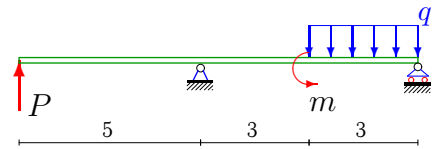
Задача 24.14



$P = 3 \text{ кН}, m = 50 \text{ кНм}, q = 40 \text{ кН/м}.$

24.3

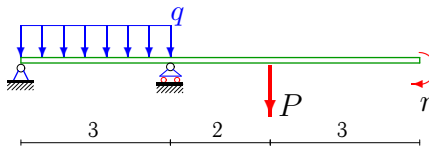
Задача 24.15



$P = 3 \text{ кН}, m = 50 \text{ кНм}, q = 40 \text{ кН/м}.$

24.3

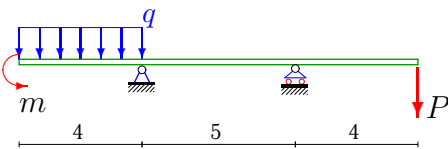
Задача 24.16



$P = 15 \text{ кН}, m = 40 \text{ кНм}, q = 4 \text{ кН/м}.$

24.3

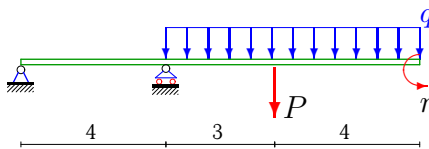
Задача 24.17



$P = 10 \text{ кН}, m = 25 \text{ кНм}, q = 20 \text{ кН/м}.$

24.3

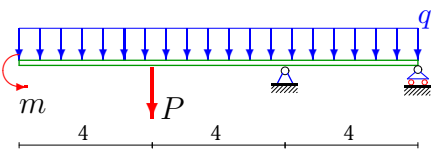
Задача 24.18



$P = 14 \text{ кН}, m = 40 \text{ кНм}, q = 36 \text{ кН/м}.$

24.3

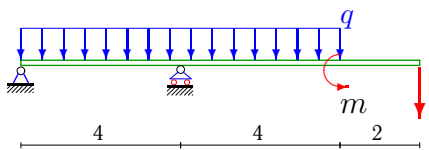
Задача 24.19



$P = 2 \text{ кН}, m = 25 \text{ кНм}, q = 20 \text{ кН/м}.$

24.3

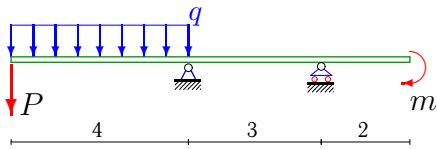
Задача 24.20



$P = 7 \text{ кН}, m = 30 \text{ кНм}, q = 32 \text{ кН/м}.$

24.3

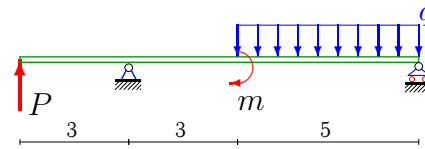
Задача 24.21



$P = 14 \text{ кН}, m = 30 \text{ кНм}, q = 8 \text{ кН/м}.$

24.3

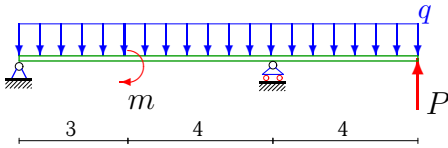
Задача 24.22



$P = 7 \text{ кН}, m = 30 \text{ кНм}, q = 8 \text{ кН/м}.$

24.3

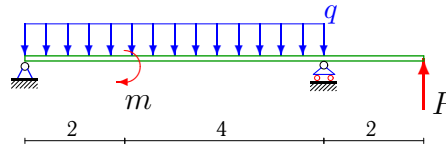
Задача 24.23



$P = 10 \text{ кН}, m = 10 \text{ кНм}, q = 16 \text{ кН/м}.$

24.3

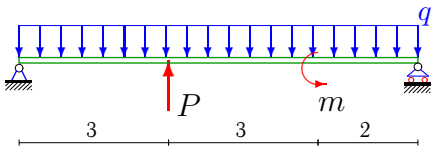
Задача 24.24



$P = 5 \text{ кН}, m = 10 \text{ кНм}, q = 16 \text{ кН/м}.$

24.3

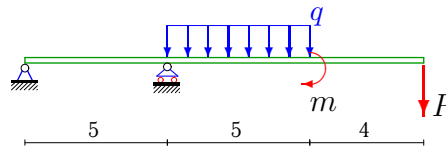
Задача 24.25



$P = 7 \text{ кН}, m = 40 \text{ кНм}, q = 36 \text{ кН/м}.$

24.3

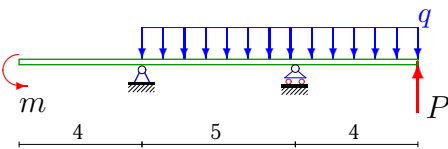
Задача 24.26



$P = 9 \text{ кН}, m = 20 \text{ кНм}, q = 12 \text{ кН/м}.$

24.3

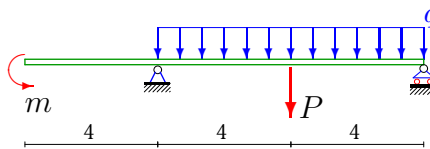
Задача 24.27



$P = 8 \text{ кН}, m = 40 \text{ кНм}, q = 36 \text{ кН/м}.$

24.3

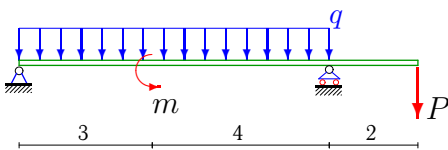
Задача 24.28



$P = 14 \text{ кН}, m = 10 \text{ кНм}, q = 24 \text{ кН/м}.$

24.3

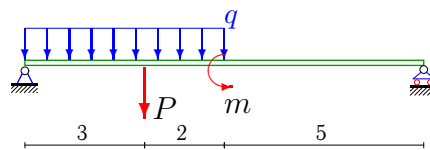
Задача 24.29



$P = 6 \text{ кН}, m = 50 \text{ кНм}, q = 40 \text{ кН/м}.$

24.3

Задача 24.30



$P = 3 \text{ кН}, m = 10 \text{ кНм}, q = 24 \text{ кН/м}.$

24.3

Балка

	R_A	R_B	$\max M $	x_*	$EI\Delta y$
1	69.14	24.86	89.60	6.88	-396.57
2	116	258	350.00	7.00	-4570.00
3	-36.75	143.75	177.00	8.00	-1191.00
4	-103.67	186.67	311.00	3.00	-1999.50
5	-10	70	116.00	8.00	358.75
6	114.82	115.18	306.58	5.74	-3007.64
7	17.83	141.17	59.04	3.59	-189.00
8	40.2	43.8	119.00	5.00	-631.80
9	-56.2	101.2	281.00	5.00	-7540.83
10	-61.33	135.33	220.00	3.00	-4647.00
11	30.13	240.88	189.00	8.00	-527.88
12	63.75	-30.75	123.00	5.00	-1700.67
13	17.2	80.8	90.68	7.76	-603.85
14	157.45	39.55	309.90	3.94	-3395.45
15	32.83	84.17	122.50	5.00	1125.00
16	-17.33	44.33	70.00	3.00	-251.00
17	109	-19	185.00	4.00	-1096.67
18	-221	487	884.00	4.00	-6438.50
19	370.25	-128.25	673.00	8.00	-7245.33
20	-3	266	268.00	4.00	-3362.67
21	76	-30	120.00	4.00	-1094.67
22	-0.88	33.88	71.72	6.77	573.50
23	42	124	88.00	7.00	-184.38
24	48	43	82.00	3.00	354.67
25	144.63	136.38	298.31	4.21	-1819.38
26	-50.2	119.2	251.00	5.00	-8539.50
27	46.8	269.2	256.00	9.00	-2071.33
28	104.25	101.75	215.00	8.00	-1389.33
29	145.43	140.57	256.29	0.00	1018.95
30	93.1	29.9	178.13	3.75	-1415.60