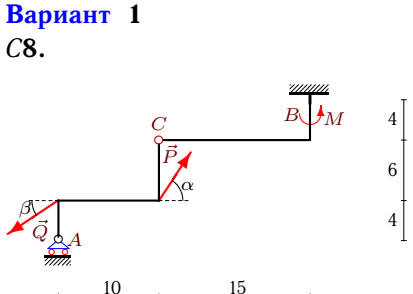
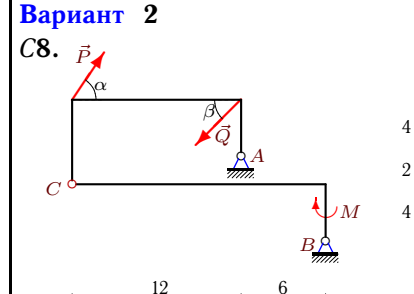
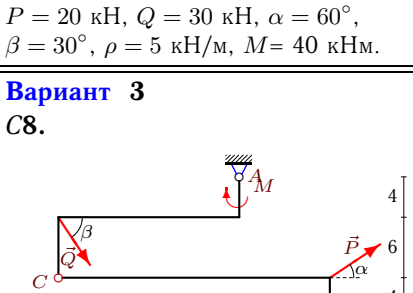
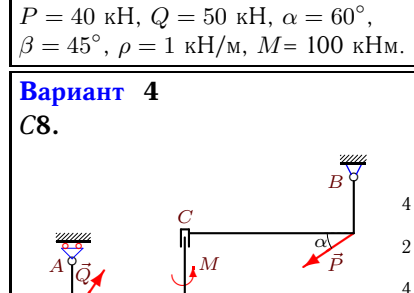
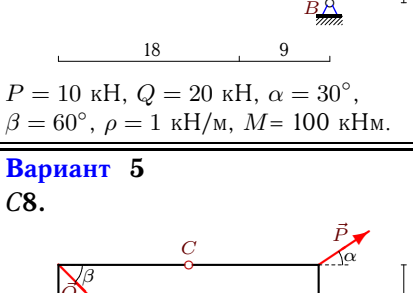
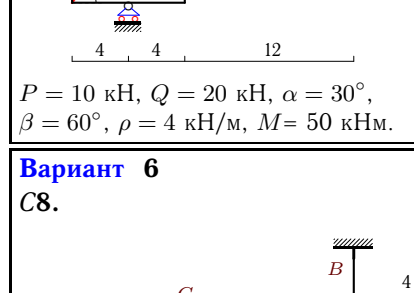
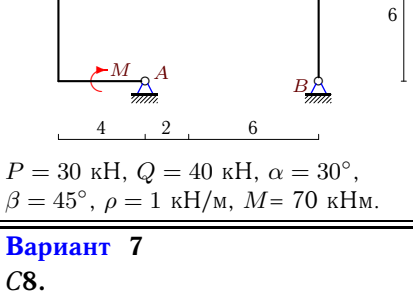
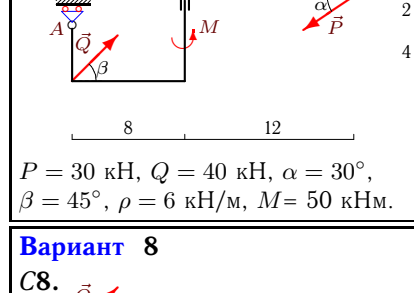
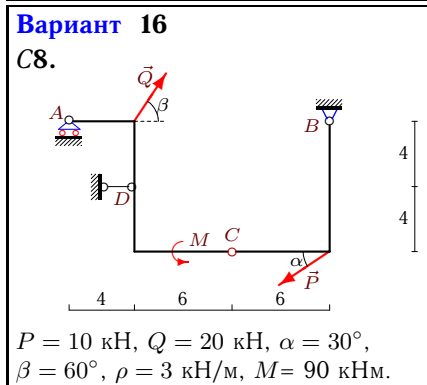
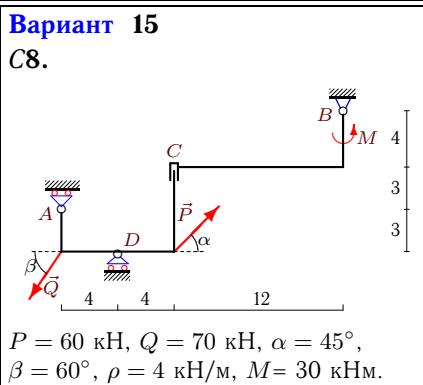
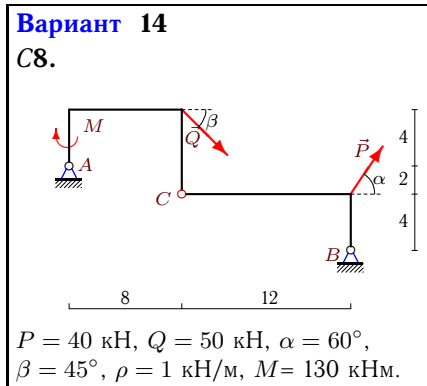
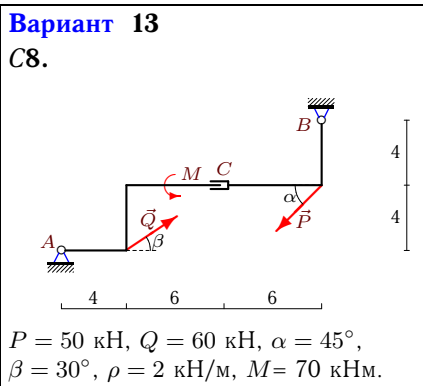
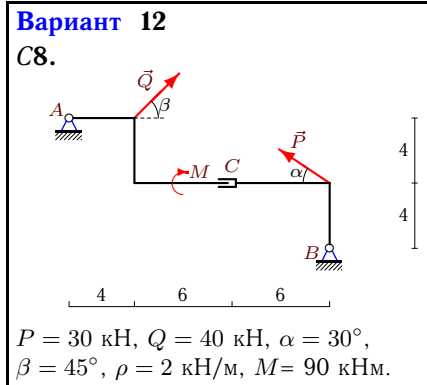
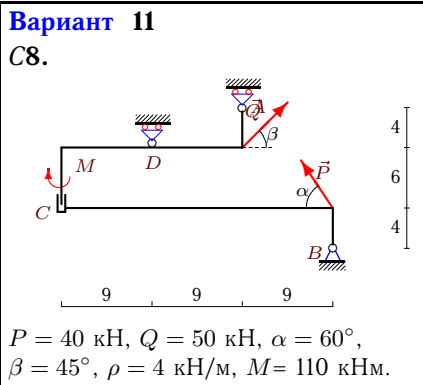
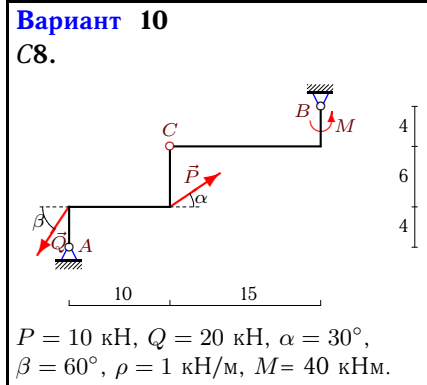
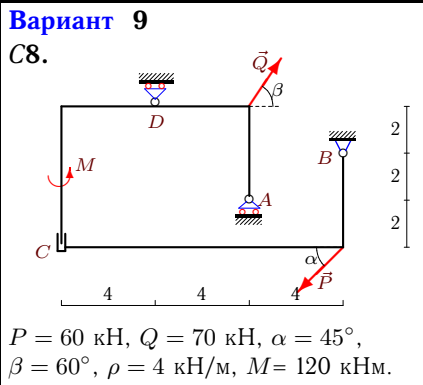


Расчет составной конструкции

Рама состоит из двух частей, соединенных шарниром или скользящей заделкой. Дан погонный вес рамы ρ , размеры в метрах и нагрузки. Найти реакции опор.

Кирсанов М.Н. Решебник. Теоретическая механика с. 54.

<p>Вариант 1 С8.</p>  <p>$P = 20 \text{ кН}, Q = 30 \text{ кН}, \alpha = 60^\circ,$ $\beta = 30^\circ, \rho = 5 \text{ кН/м}, M = 40 \text{ кНм}.$</p>	<p>Вариант 2 С8.</p>  <p>$P = 40 \text{ кН}, Q = 50 \text{ кН}, \alpha = 60^\circ,$ $\beta = 45^\circ, \rho = 1 \text{ кН/м}, M = 100 \text{ кНм}.$</p>
<p>Вариант 3 С8.</p>  <p>$P = 10 \text{ кН}, Q = 20 \text{ кН}, \alpha = 30^\circ,$ $\beta = 60^\circ, \rho = 1 \text{ кН/м}, M = 100 \text{ кНм}.$</p>	<p>Вариант 4 С8.</p>  <p>$P = 10 \text{ кН}, Q = 20 \text{ кН}, \alpha = 30^\circ,$ $\beta = 60^\circ, \rho = 4 \text{ кН/м}, M = 50 \text{ кНм}.$</p>
<p>Вариант 5 С8.</p>  <p>$P = 30 \text{ кН}, Q = 40 \text{ кН}, \alpha = 30^\circ,$ $\beta = 45^\circ, \rho = 1 \text{ кН/м}, M = 70 \text{ кНм}.$</p>	<p>Вариант 6 С8.</p>  <p>$P = 30 \text{ кН}, Q = 40 \text{ кН}, \alpha = 30^\circ,$ $\beta = 45^\circ, \rho = 6 \text{ кН/м}, M = 50 \text{ кНм}.$</p>
<p>Вариант 7 С8.</p>  <p>$P = 30 \text{ кН}, Q = 40 \text{ кН}, \alpha = 30^\circ,$ $\beta = 45^\circ, \rho = 4 \text{ кН/м}, M = 90 \text{ кНм}.$</p>	<p>Вариант 8 С8.</p>  <p>$P = 40 \text{ кН}, Q = 50 \text{ кН}, \alpha = 60^\circ,$ $\beta = 45^\circ, \rho = 1 \text{ кН/м}, M = 140 \text{ кНм}.$</p>



Вариант 17
С8.

$P = 10 \text{ кН}, Q = 20 \text{ кН}, \alpha = 30^\circ,$
 $\beta = 60^\circ, \rho = 2 \text{ кН/м}, M = 30 \text{ кНм}.$

Вариант 18
С8.

$P = 20 \text{ кН}, Q = 30 \text{ кН}, \alpha = 60^\circ,$
 $\beta = 30^\circ, \rho = 2 \text{ кН/м}, M = 140 \text{ кНм}.$

Вариант 19
С8.

$P = 30 \text{ кН}, Q = 40 \text{ кН}, \alpha = 30^\circ,$
 $\beta = 45^\circ, \rho = 6 \text{ кН/м}, M = 120 \text{ кНм}.$

Вариант 20
С8.

$P = 60 \text{ кН}, Q = 70 \text{ кН}, \alpha = 45^\circ,$
 $\beta = 60^\circ, \rho = 2 \text{ кН/м}, M = 10 \text{ кНм}.$

Вариант 21
С8.

$P = 30 \text{ кН}, Q = 40 \text{ кН}, \alpha = 30^\circ,$
 $\beta = 45^\circ, \rho = 3 \text{ кН/м}, M = 80 \text{ кНм}.$

Вариант 22
С8.

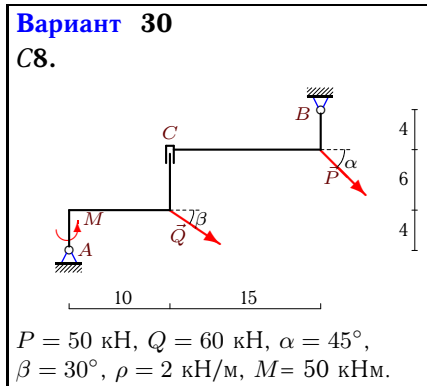
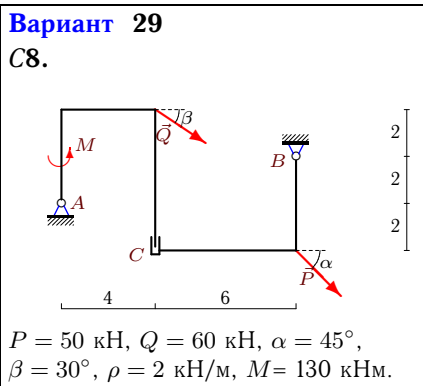
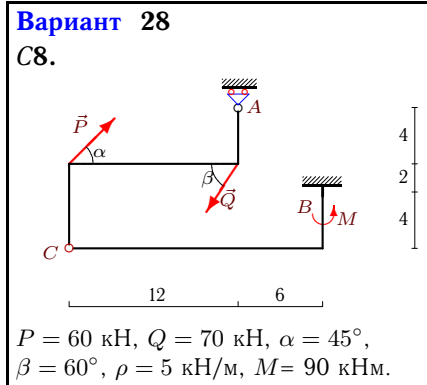
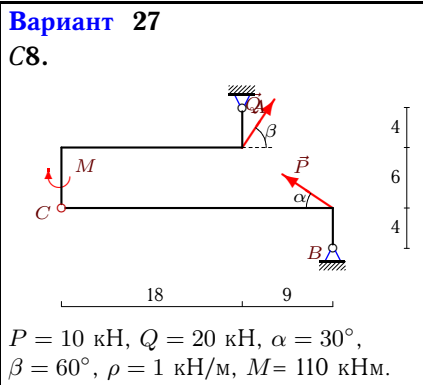
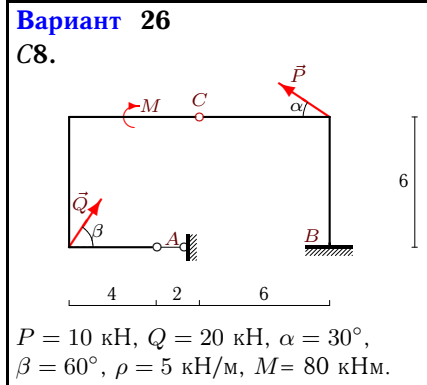
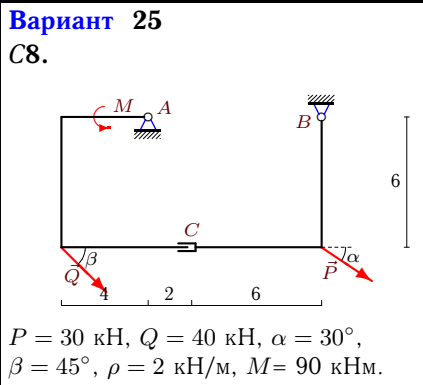
$P = 30 \text{ кН}, Q = 40 \text{ кН}, \alpha = 30^\circ,$
 $\beta = 45^\circ, \rho = 5 \text{ кН/м}, M = 30 \text{ кНм}.$

Вариант 23
С8.

$P = 40 \text{ кН}, Q = 50 \text{ кН}, \alpha = 60^\circ,$
 $\beta = 45^\circ, \rho = 1 \text{ кН/м}, M = 130 \text{ кНм}.$

Вариант 24
С8.

$P = 40 \text{ кН}, Q = 50 \text{ кН}, \alpha = 60^\circ,$
 $\beta = 45^\circ, \rho = 1 \text{ кН/м}, M = 80 \text{ кНм}.$



Ответы

	X_A	Y_A	X_B	Y_B	X_D	Y_D	M_B
1	—	50.41	15.98	142.27	—	—	-1247.6
2	-20.85	34.2	36.2	10.51	—	—	—
3	48.55	48.86	-67.21	22.46	—	—	—
4	—	75.52	-1.34	69	—	-20.84	—
5	-22.96	15.98	-31.3	25.3	—	—	—
6	—	79.72	-2.3	111	—	—	-180.92
7	—	20.35	25.98	94.37	-28.28	—	—
8	-33.66	-30.56	18.3	53.84	—	—	—
9	—	-110.7	7.43	106.43	—	122.07	—
10	22.65	48.17	-21.31	3.15	—	—	—
11	—	-162.74	-15.36	89.36	—	239.38	—
12	-28.28	1.66	25.98	3.06	—	—	—
13	-51.96	-4.96	35.36	58.32	—	—	—
14	908.04	-261.78	-963.4	296.5	—	—	—
15	—	189.11	-7.43	64	—	-102.92	—
16	—	26.34	14.5	57.34	-15.84	—	—
17	-117.9	26.68	116.55	49	—	—	—
18	-62.63	21	46.65	14.68	—	—	—
19	—	103.72	-2.3	117	—	—	-1537.08
20	-26.74	60.2	19.3	44	—	—	—
21	—	79.59	8.77	59.7	-63.04	—	—
22	—	53.9	-54.27	284.38	—	—	-5127.8
23	-19.82	-12.84	4.47	46.13	—	—	—
24	-6.68	-25.03	-8.68	-16.96	—	—	—
25	-28.28	140.38	-25.98	-41.1	—	—	—
26	-37.68	—	36.34	117.68	—	—	-684.12
27	26.8	20.01	-28.14	16.67	—	—	—
28	—	114.33	-7.43	123.86	—	—	-1179.2
29	-9.75	58	-77.57	55.36	—	—	—
30	-29.72	70	-57.6	73.36	—	—	—