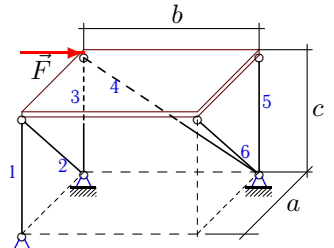
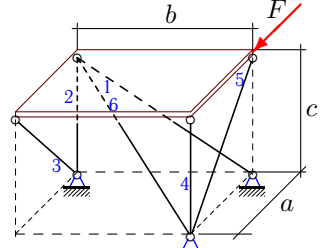
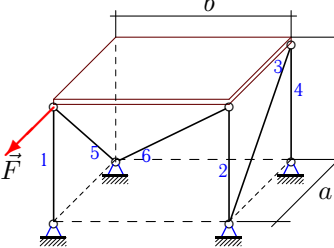
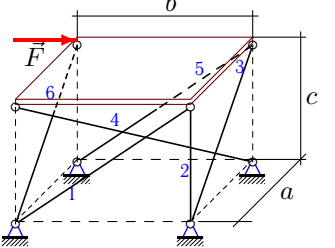
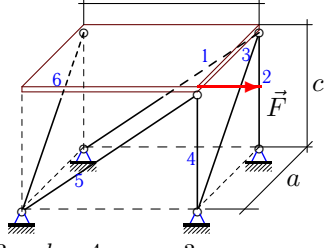
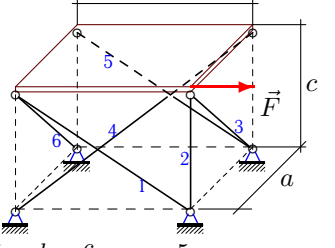
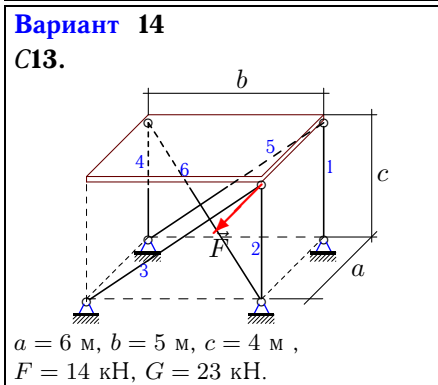
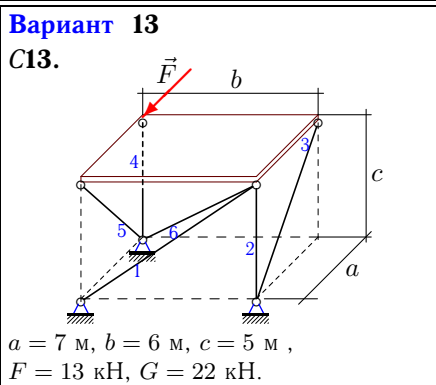
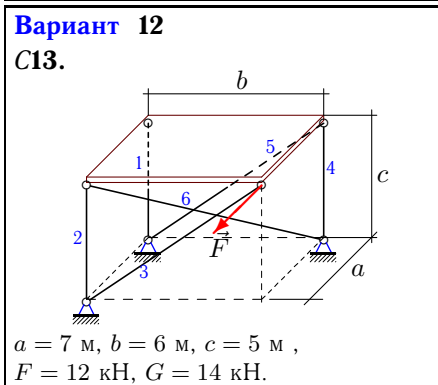
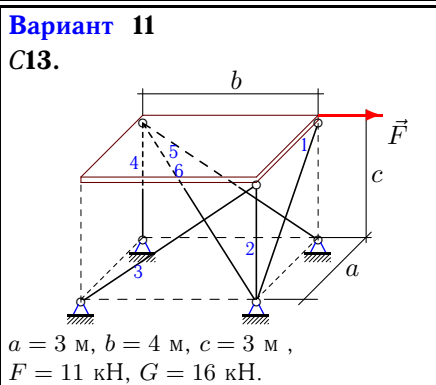
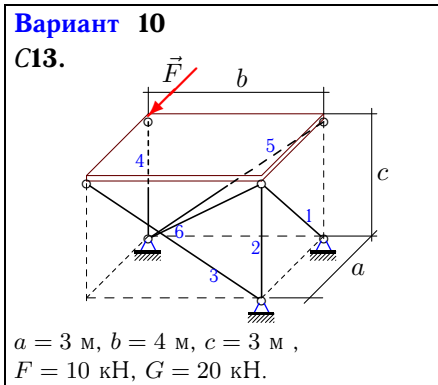
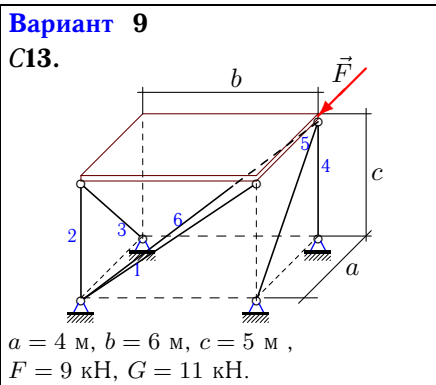
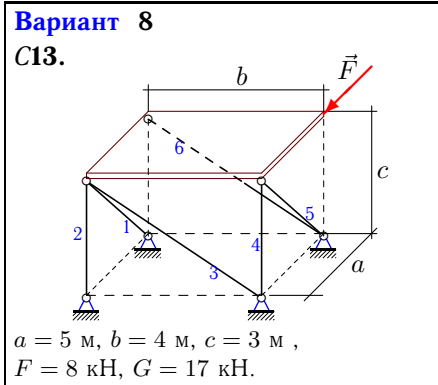
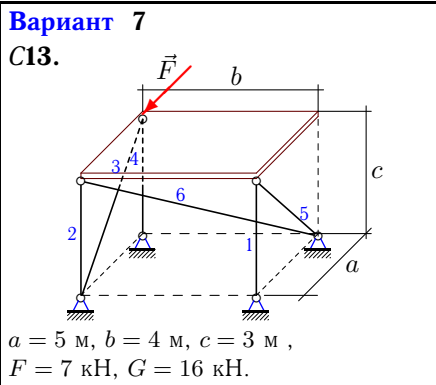


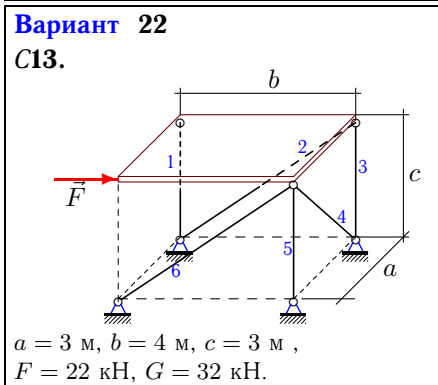
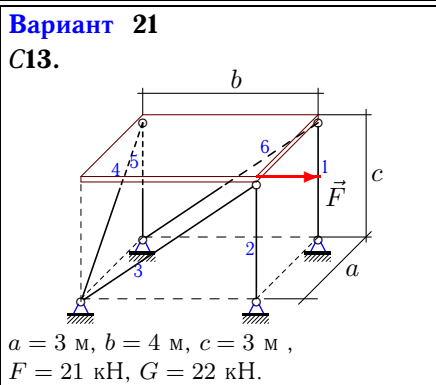
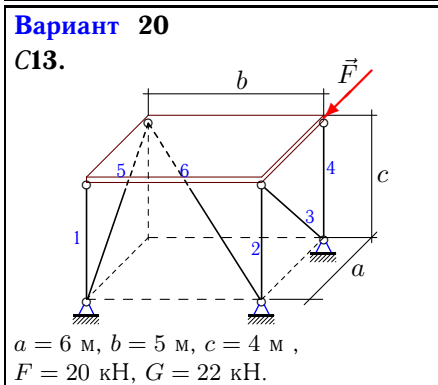
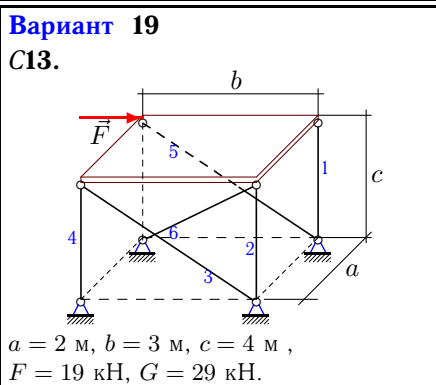
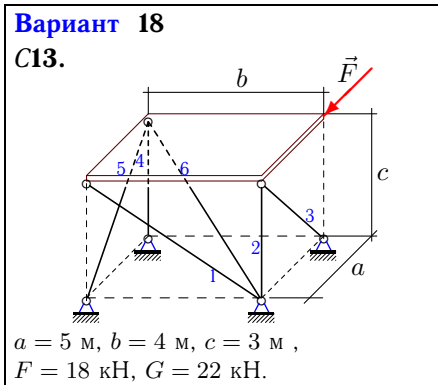
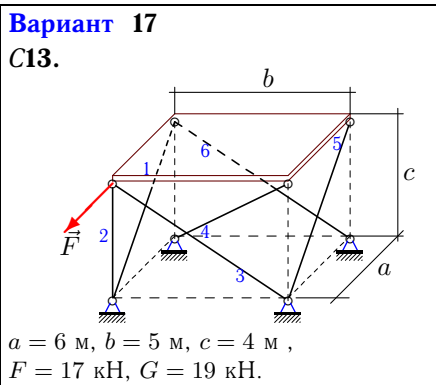
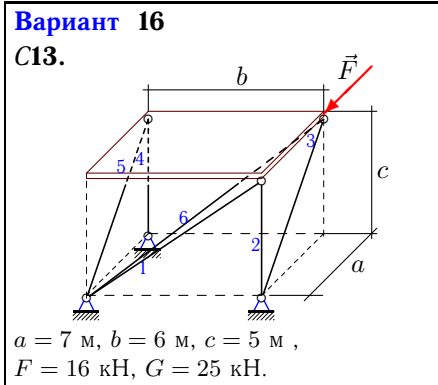
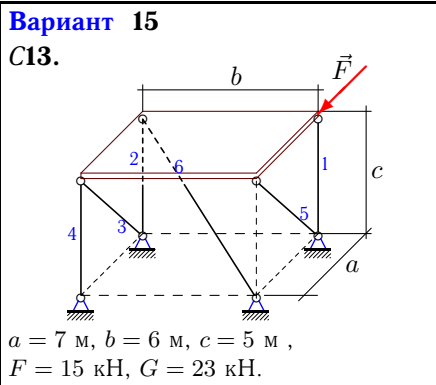
Определение усилий в стержнях, поддерживающих плиту

Однородная прямоугольная горизонтальная плита весом G опирается на шесть невесомых шарнирно закрепленных по концам стержней. Вдоль ребра плиты действует сила F . Определить усилия в стержнях (в кН).

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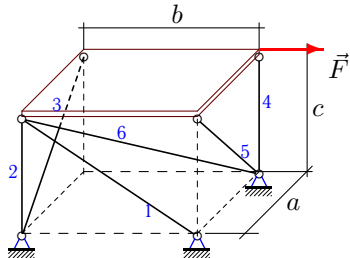
<p>Вариант 1 С13.</p>  <p>$a = 7 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$ $F = 1 \text{ кН}, G = 2 \text{ кН}.$</p>	<p>Вариант 2 С13.</p>  <p>$a = 5 \text{ м}, b = 4 \text{ м}, c = 3 \text{ м},$ $F = 2 \text{ кН}, G = 10 \text{ кН}.$</p>
<p>Вариант 3 С13.</p>  <p>$a = 7 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$ $F = 3 \text{ кН}, G = 10 \text{ кН}.$</p>	<p>Вариант 4 С13.</p>  <p>$a = 4 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$ $F = 4 \text{ кН}, G = 14 \text{ кН}.$</p>
<p>Вариант 5 С13.</p>  <p>$a = 3 \text{ м}, b = 4 \text{ м}, c = 3 \text{ м},$ $F = 5 \text{ кН}, G = 15 \text{ кН}.$</p>	<p>Вариант 6 С13.</p>  <p>$a = 7 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$ $F = 6 \text{ кН}, G = 11 \text{ кН}.$</p>





Вариант 23

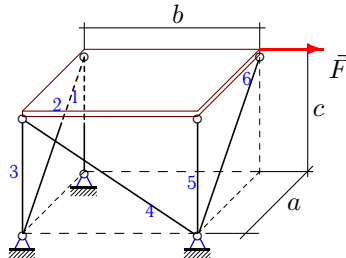
С13.



$a = 4 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$
 $F = 23 \text{ кН}, G = 30 \text{ кН}.$

Вариант 24

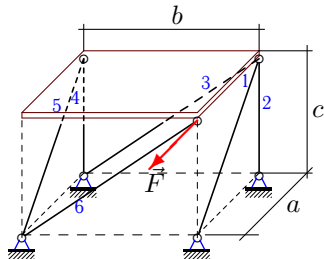
С13.



$a = 6 \text{ м}, b = 5 \text{ м}, c = 4 \text{ м},$
 $F = 24 \text{ кН}, G = 28 \text{ кН}.$

Вариант 25

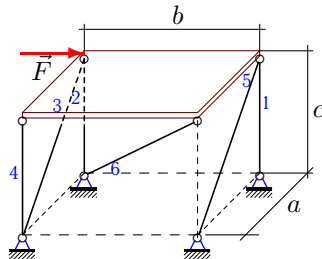
С13.



$a = 2 \text{ м}, b = 3 \text{ м}, c = 4 \text{ м},$
 $F = 25 \text{ кН}, G = 33 \text{ кН}.$

Вариант 26

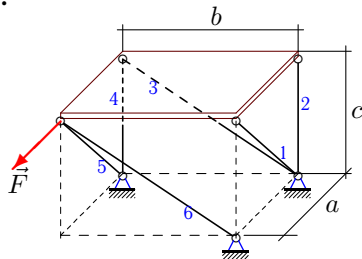
С13.



$a = 4 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$
 $F = 26 \text{ кН}, G = 29 \text{ кН}.$

Вариант 27

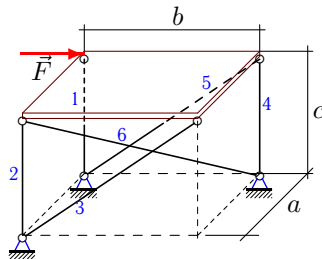
С13.



$a = 4 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$
 $F = 27 \text{ кН}, G = 30 \text{ кН}.$

Вариант 28

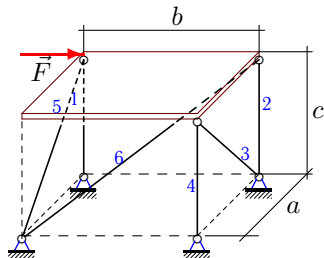
С13.



$a = 4 \text{ м}, b = 6 \text{ м}, c = 5 \text{ м},$
 $F = 28 \text{ кН}, G = 30 \text{ кН}.$

Вариант 29

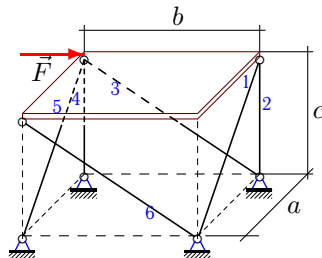
С13.



$a = 6 \text{ м}, b = 5 \text{ м}, c = 4 \text{ м},$
 $F = 29 \text{ кН}, G = 37 \text{ кН}.$

Вариант 30

С13.



$a = 6 \text{ м}, b = 5 \text{ м}, c = 4 \text{ м},$
 $F = 30 \text{ кН}, G = 36 \text{ кН}.$

Ответы

	S_1	S_2	S_3	S_4	S_5	S_6
1	-1.000	0.000	0.833	-1.302	-1.000	0.000
2	2.000	-3.800	-2.332	-3.800	-2.332	-2.828
3	-7.143	0.000	0.000	-5.000	3.687	0.000
4	-1.909	0.000	-5.834	-10.140	-1.909	-1.565
5	12.500	-15.000	10.607	-3.750	-6.250	-10.607
6	-5.467	-0.000	-6.022	-4.195	-5.467	2.581
7	-8.000	0.000	-8.163	-3.800	0.000	0.000
8	16.521	-17.000	14.167	-4.800	-7.192	-14.167
9	0.000	-5.500	0.000	5.750	-14.407	-0.000
10	14.142	-10.000	-16.667	0.000	-16.667	0.000
11	0.000	-8.000	0.000	0.250	-13.750	0.000
12	0.000	-15.571	0.000	-15.571	13.389	17.980
13	-14.505	-20.286	15.976	-20.286	15.976	19.478
14	0.000	-2.167	-14.941	-2.167	-0.000	-20.475
15	-22.214	10.714	0.000	-22.214	18.434	0.000
16	-17.852	-1.071	-19.662	-1.071	-19.662	23.973
17	-12.519	0.000	-11.117	-5.606	-12.519	7.026
18	-0.000	-21.800	20.991	-11.000	0.000	0.000
19	10.833	-25.333	0.000	10.833	-31.667	0.000
20	-11.000	-13.333	24.037	-11.000	0.000	0.000
21	0.000	-26.750	26.250	0.000	-11.000	0.000
22	-16.000	0.000	0.000	0.000	-32.500	27.500
23	-29.939	-15.000	24.545	-34.167	24.545	-0.000
24	-14.000	34.613	-0.000	-30.735	5.200	-34.613
25	-37.454	17.000	20.625	0.000	-18.448	-20.625
26	-36.167	0.000	27.747	-36.167	0.000	38.025
27	62.430	-63.750	76.150	0.000	-19.209	-76.150
28	-0.000	-15.000	0.000	-38.333	36.448	0.000
29	-18.500	-23.200	41.824	-41.700	0.000	50.895
30	-32.450	0.000	-9.605	-12.000	32.450	-28.814