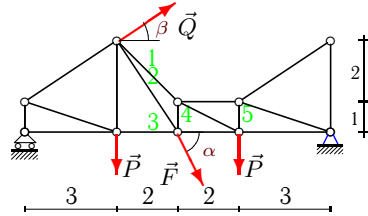


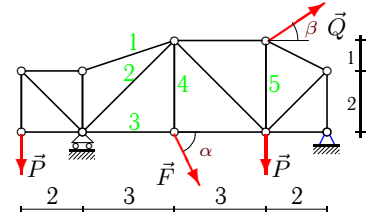
Расчет фермы

Кирсанов М.Н. Решебник. Теоретическая механика с. 37.

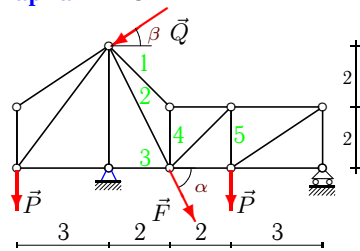
<p>Вариант 1</p> <p>C5. $P = 50\text{кН}$, $Q = 60\text{кН}$, $F = 17\text{кН}$, $\alpha = 35^\circ$, $\beta = 15^\circ$.</p>	<p>Вариант 2</p> <p>C5. $P = 60\text{кН}$, $Q = 80\text{кН}$, $F = 36\text{кН}$, $\alpha = 40^\circ$, $\beta = 45^\circ$.</p>
<p>Вариант 3</p> <p>C5. $P = 10\text{кН}$, $Q = 70\text{кН}$, $F = 33\text{кН}$, $\alpha = 60^\circ$, $\beta = 15^\circ$.</p>	<p>Вариант 4</p> <p>C5. $P = 60\text{кН}$, $Q = 40\text{кН}$, $F = 53\text{кН}$, $\alpha = 40^\circ$, $\beta = 15^\circ$.</p>
<p>Вариант 5</p> <p>C5. $P = 70\text{кН}$, $Q = 80\text{кН}$, $F = 64\text{кН}$, $\alpha = 45^\circ$.</p>	<p>Вариант 6</p> <p>C5. $P = 40\text{кН}$, $Q = 40\text{кН}$, $F = 77\text{кН}$, $\alpha = 75^\circ$, $\beta = 15^\circ$.</p>
<p>Вариант 7</p> <p>C5. $P = 20\text{кН}$, $Q = 50\text{кН}$, $F = 76\text{кН}$, $\alpha = 65^\circ$, $\beta = 45^\circ$.</p>	<p>Вариант 8</p> <p>C5. $P = 90\text{кН}$, $Q = 80\text{кН}$, $F = 99\text{кН}$, $\alpha = 55^\circ$, $\beta = 30^\circ$.</p>
<p>Вариант 9</p> <p>C5. $P = 10\text{кН}$, $Q = 90\text{кН}$, $F = 104\text{кН}$, $\alpha = 60^\circ$, $\beta = 15^\circ$.</p>	<p>Вариант 10</p> <p>C5. $P = 70\text{кН}$, $Q = 60\text{кН}$, $F = 10\text{кН}$, $\alpha = 45^\circ$.</p>

Вариант 11

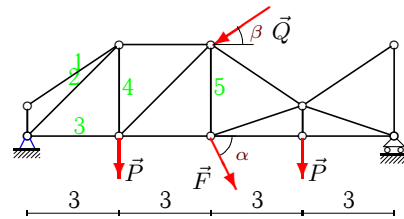
C5.
 $P = 20 \text{ кН}$,
 $Q = 30 \text{ кН}$,
 $F = 11 \text{ кН}$,
 $\alpha = 65^\circ$,
 $\beta = 30^\circ$.

Вариант 12

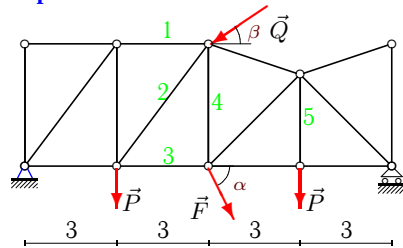
C5.
 $P = 60 \text{ кН}$,
 $Q = 60 \text{ кН}$,
 $F = 12 \text{ кН}$,
 $\alpha = 40^\circ$,
 $\beta = 45^\circ$.

Вариант 13

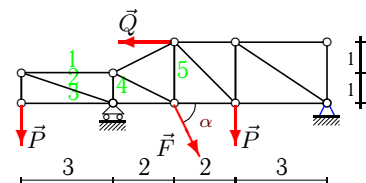
C5.
 $P = 20 \text{ кН}$,
 $Q = 90 \text{ кН}$,
 $F = 13 \text{ кН}$,
 $\alpha = 65^\circ$,
 $\beta = 30^\circ$.

Вариант 14

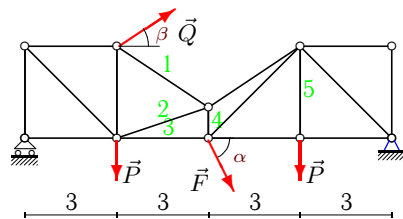
C5.
 $P = 50 \text{ кН}$,
 $Q = 40 \text{ кН}$,
 $F = 14 \text{ кН}$,
 $\alpha = 35^\circ$,
 $\beta = 15^\circ$.

Вариант 15

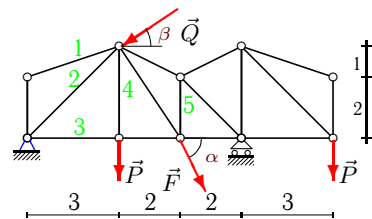
C5.
 $P = 80 \text{ кН}$,
 $Q = 90 \text{ кН}$,
 $F = 15 \text{ кН}$,
 $\alpha = 50^\circ$,
 $\beta = 15^\circ$.

Вариант 16

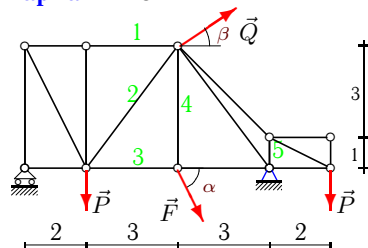
C5.
 $P = 40 \text{ кН}$,
 $Q = 70 \text{ кН}$,
 $F = 16 \text{ кН}$,
 $\alpha = 75^\circ$.

Вариант 17

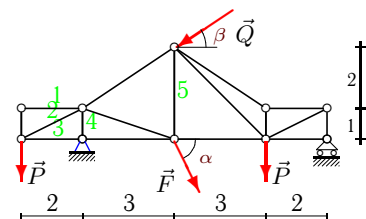
C5.
 $P = 30 \text{ кН}$,
 $Q = 70 \text{ кН}$,
 $F = 17 \text{ кН}$,
 $\alpha = 70^\circ$,
 $\beta = 30^\circ$.

Вариант 18

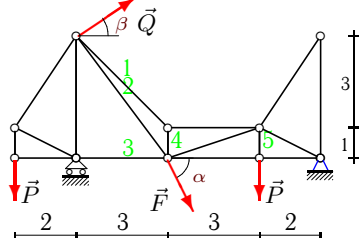
C5.
 $P = 40 \text{ кН}$,
 $Q = 60 \text{ кН}$,
 $F = 18 \text{ кН}$,
 $\alpha = 75^\circ$,
 $\beta = 15^\circ$.

Вариант 19

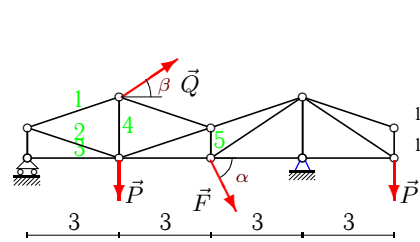
C5.
 $P = 10 \text{ кН}$,
 $Q = 80 \text{ кН}$,
 $F = 19 \text{ кН}$,
 $\alpha = 60^\circ$,
 $\beta = 45^\circ$.

Вариант 20

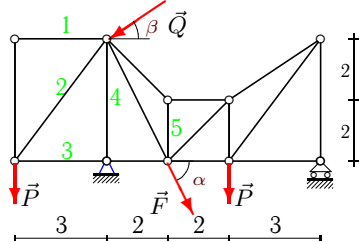
C5.
 $P = 50 \text{ кН}$,
 $Q = 80 \text{ кН}$,
 $F = 20 \text{ кН}$,
 $\alpha = 35^\circ$,
 $\beta = 30^\circ$.

Вариант 21

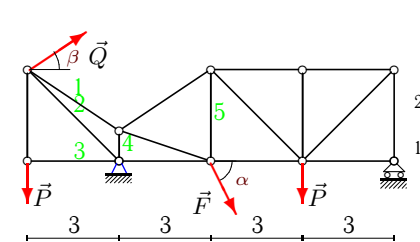
C5.
 $P = 60 \text{ кН}$,
 $Q = 80 \text{ кН}$,
 $F = 21 \text{ кН}$,
 $\alpha = 40^\circ$,
 $\beta = 45^\circ$.

Вариант 22

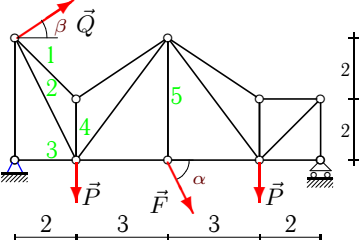
C5.
 $P = 40 \text{ кН}$,
 $Q = 90 \text{ кН}$,
 $F = 22 \text{ кН}$,
 $\alpha = 75^\circ$,
 $\beta = 45^\circ$.

Вариант 23

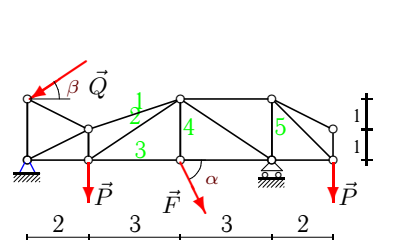
C5.
 $P = 40 \text{ кН}$,
 $Q = 90 \text{ кН}$,
 $F = 23 \text{ кН}$,
 $\alpha = 75^\circ$,
 $\beta = 30^\circ$.

Вариант 24

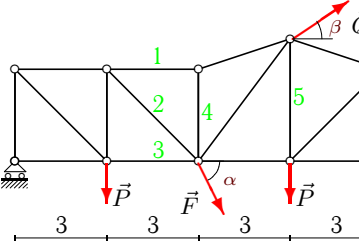
C5.
 $P = 40 \text{ кН}$,
 $Q = 40 \text{ кН}$,
 $F = 24 \text{ кН}$,
 $\alpha = 75^\circ$,
 $\beta = 30^\circ$.

Вариант 25

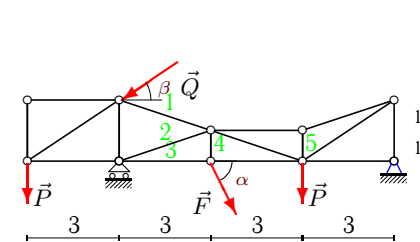
C5.
 $P = 50 \text{ кН}$,
 $Q = 80 \text{ кН}$,
 $F = 25 \text{ кН}$,
 $\alpha = 35^\circ$,
 $\beta = 15^\circ$.

Вариант 26

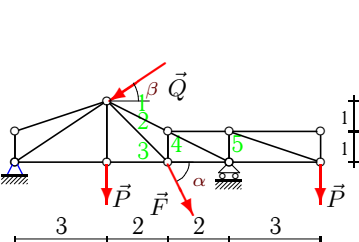
C5.
 $P = 60 \text{ кН}$,
 $Q = 40 \text{ кН}$,
 $F = 26 \text{ кН}$,
 $\alpha = 40^\circ$,
 $\beta = 15^\circ$.

Вариант 27

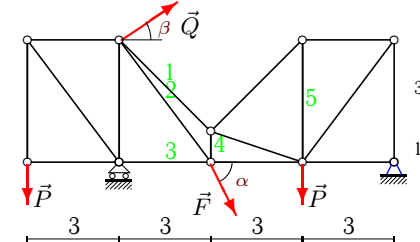
C5.
 $P = 10 \text{ кН}$,
 $Q = 70 \text{ кН}$,
 $F = 27 \text{ кН}$,
 $\alpha = 60^\circ$,
 $\beta = 30^\circ$.

Вариант 28

C5.
 $P = 60 \text{ кН}$,
 $Q = 60 \text{ кН}$,
 $F = 28 \text{ кН}$,
 $\alpha = 40^\circ$,
 $\beta = 45^\circ$.

Вариант 29

C5.
 $P = 80 \text{ кН}$,
 $Q = 40 \text{ кН}$,
 $F = 29 \text{ кН}$,
 $\alpha = 50^\circ$,
 $\beta = 15^\circ$.

Вариант 30

C5.
 $P = 10 \text{ кН}$,
 $Q = 40 \text{ кН}$,
 $F = 30 \text{ кН}$,
 $\alpha = 60^\circ$,
 $\beta = 45^\circ$.

Отвѣты

	X_A	Y_A	R_B	S_1	S_2	S_3	S_4	S_5
1	44.030	85.822	39.458	0.000	-95.952	-1.119	85.822	28.175
2	-84.146	127.957	-41.386	24.644	-67.109	-41.386	78.979	-90.000
3	51.115	65.829	0.867	36.577	-36.975	7.945	28.579	0.867
4	-1.963	39.697	124.724	28.260	-40.288	51.359	-12.638	-64.724
5	34.745	208.039	-22.784	70.000	-165.902	-12.719	138.039	64.824
6	18.708	97.819	66.910	0.000	-122.274	54.657	40.000	16.557
7	-67.474	73.050	0.474	-37.768	-87.826	83.794	15.830	-73.050
8	12.498	121.763	179.333	-155.635	-356.392	498.099	81.096	243.527
9	-138.933	13.272	73.501	-9.954	-3.658	150.523	3.272	-45.126
10	-67.071	100.765	46.306	70.000	-36.975	17.581	7.071	46.306
11	-30.630	28.279	6.690	-143.394	123.893	6.690	-93.116	28.279
12	-51.619	16.983	68.304	63.246	-40.028	-31.696	7.713	48.087
13	72.448	135.097	-38.315	163.748	-51.084	-87.448	115.788	58.315
14	27.169	68.851	49.532	0.000	-97.370	41.682	68.851	41.207
15	77.292	126.370	68.414	-94.777	-57.962	52.263	37.283	80.000
16	65.859	-9.870	105.325	120.000	-126.491	0.000	-65.325	-47.208
17	-66.436	44.393	-3.418	-68.750	-125.599	115.735	-115.989	30.000
18	53.297	44.394	68.522	0.000	-62.782	-8.903	40.000	44.261
19	-66.069	18.213	-38.327	19.164	60.409	-55.409	16.454	10.000
20	52.899	133.150	18.321	0.000	111.803	-100.000	-133.150	-38.468
21	-72.655	63.346	13.584	-193.367	183.604	-30.000	-136.731	60.000
22	-69.334	73.763	-36.152	57.161	-57.161	0.000	48.701	-6.275
23	71.989	179.693	-32.477	0.000	50.000	-30.000	-179.693	121.192
24	-40.853	43.908	39.274	-52.789	13.127	0.000	-53.190	24.974
25	-97.753	5.555	88.079	-255.701	231.509	97.753	-301.347	14.339
26	18.720	56.279	90.786	-15.367	34.132	6.096	16.712	-60.000
27	-74.122	15.649	-7.266	24.532	-24.418	-7.266	8.177	-1.736
28	20.977	16.571	163.853	139.590	-54.659	-38.146	17.998	-16.571
29	19.996	34.731	157.837	94.279	-138.288	32.100	120.000	-80.000
30	-43.284	24.564	-6.868	-166.009	161.003	-7.500	-102.822	18.423