

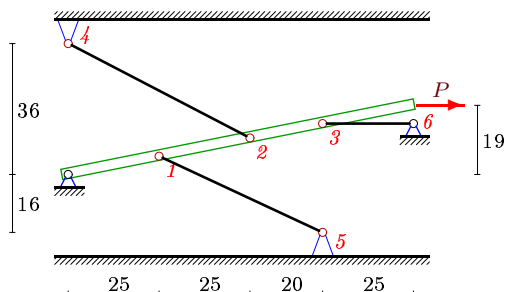
# Статически неопределимая система

Дан ряд  $p = [0.1, 0.3, 0.4, 0.2]$  распределения дискретной случайной величины силы  $P_i, i = 1, \dots, 4$ , приложенной к балке. Найти математические ожидания и дисперсии усилий в стержнях.

## Задача L-16.1.

1

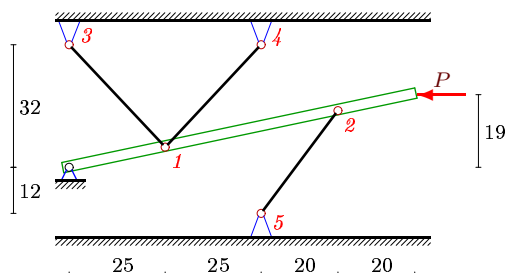
$P = [24, 25, 27, 30]$  кН.



## Задача L-16.2.

1

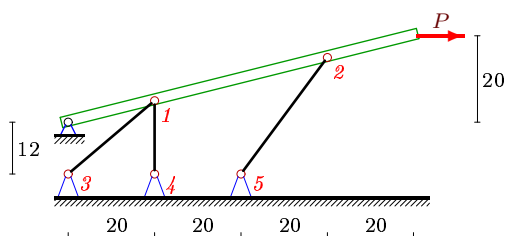
$P = [19, 18, 16, 13]$  кН.



## Задача L-16.3.

1

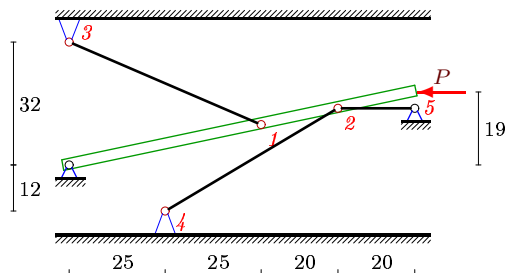
$P = [16, 17, 19, 22]$  кН.



## Задача L-16.4.

1

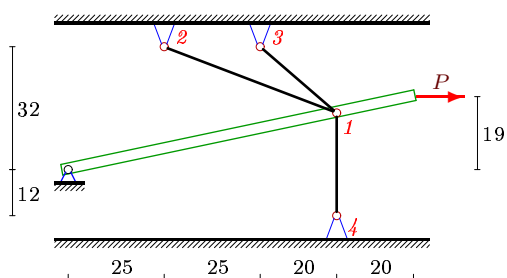
$P = [18, 17, 15, 12]$  кН.



## Задача L-16.5.

1

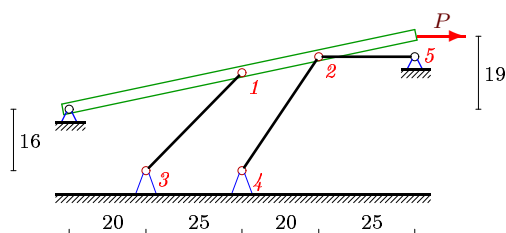
$P = [12, 13, 15, 18]$  кН.



## Задача L-16.6.

1

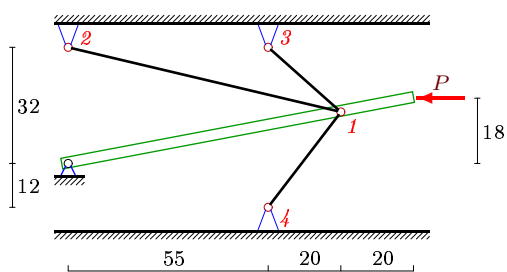
$P = [22, 23, 25, 28]$  кН.



## Задача L-16.7.

1

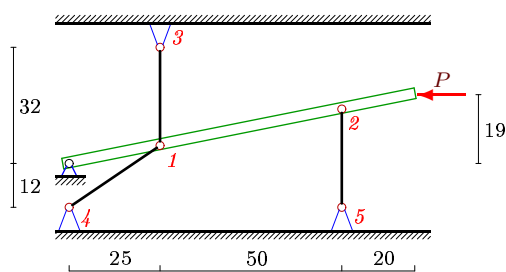
$P = [17, 16, 14, 11]$  кН.



## Задача L-16.8.

1

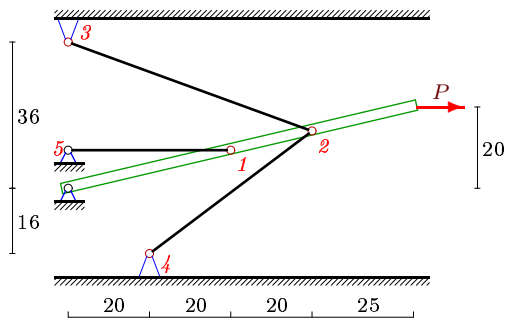
$P = [16, 15, 13, 10]$  кН.



**Задача L-16.9.**

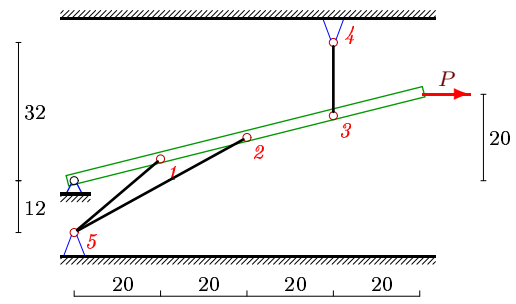
1

$$P = [22, 23, 25, 28] \text{ кН.}$$

**Задача L-16.10.**

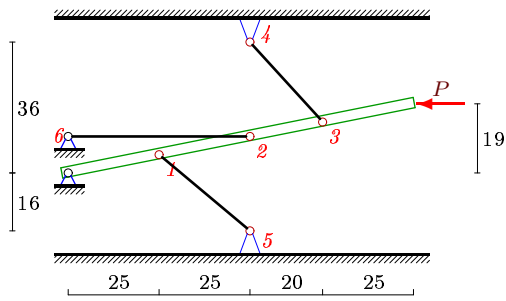
1

$$P = [14, 15, 17, 20] \text{ кН.}$$

**Задача L-16.11.**

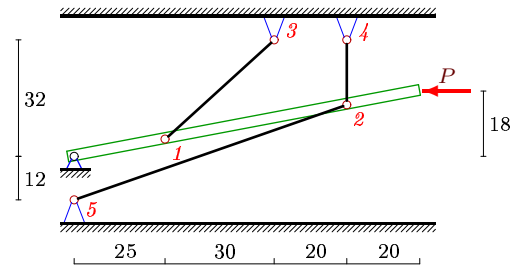
1

$$P = [11, 10, 8, 5] \text{ кН.}$$

**Задача L-16.12.**

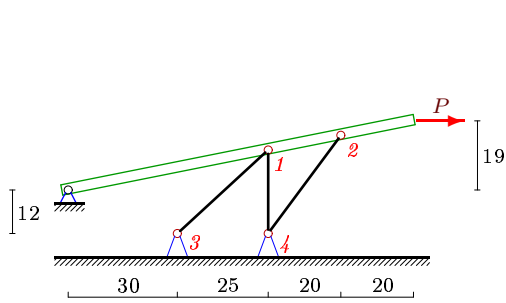
1

$$P = [13, 12, 10, 7] \text{ кН.}$$

**Задача L-16.13.**

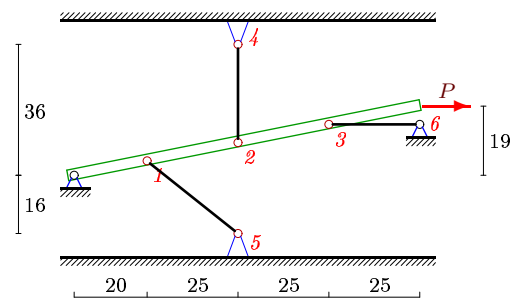
1

$$P = [16, 17, 19, 22] \text{ кН.}$$

**Задача L-16.14.**

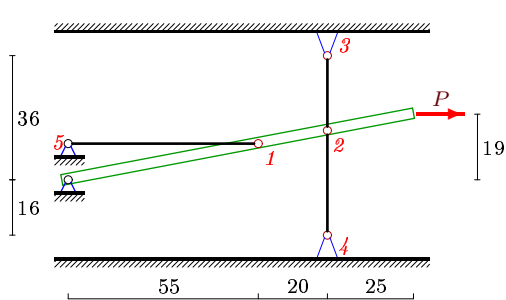
1

$$P = [24, 25, 27, 30] \text{ кН.}$$

**Задача L-16.15.**

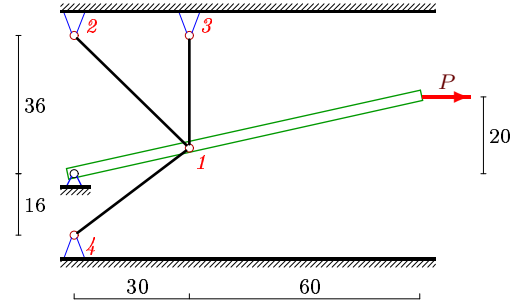
1

$$P = [24, 25, 27, 30] \text{ кН.}$$

**Задача L-16.16.**

1

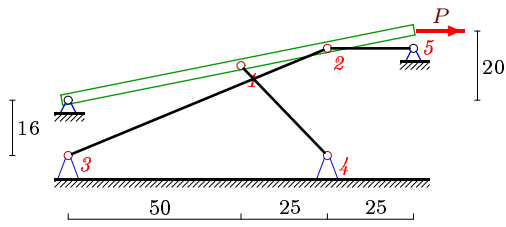
$$P = [20, 21, 23, 26] \text{ кН.}$$



**Задача L-16.17.**

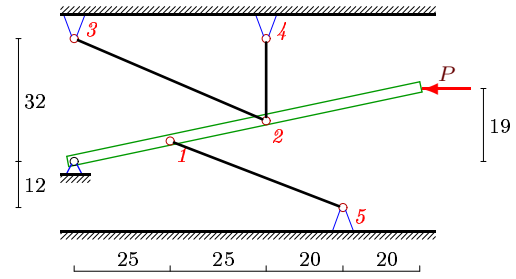
1

$$P = [24, 25, 27, 30] \text{ кН.}$$

**Задача L-16.18.**

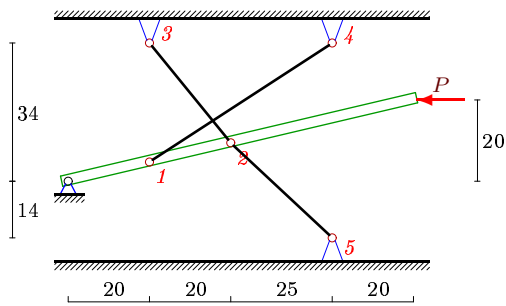
1

$$P = [18, 17, 15, 12] \text{ кН.}$$

**Задача L-16.19.**

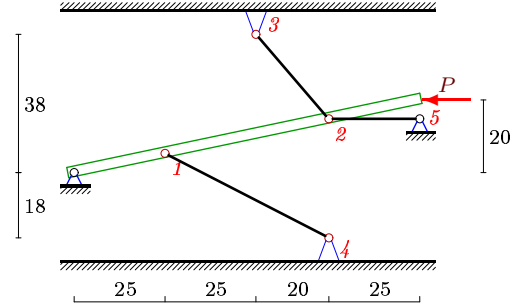
1

$$P = [10, 9, 7, 4] \text{ кН.}$$

**Задача L-16.20.**

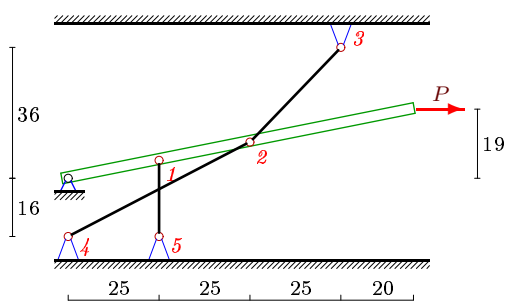
1

$$P = [11, 10, 8, 5] \text{ кН.}$$

**Задача L-16.21.**

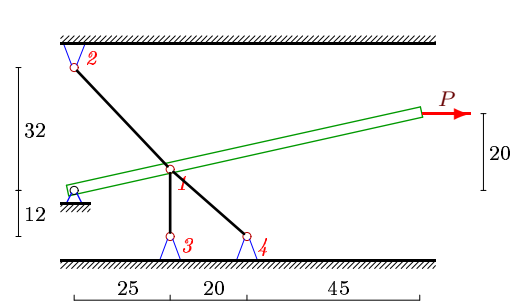
1

$$P = [20, 21, 23, 26] \text{ кН.}$$

**Задача L-16.22.**

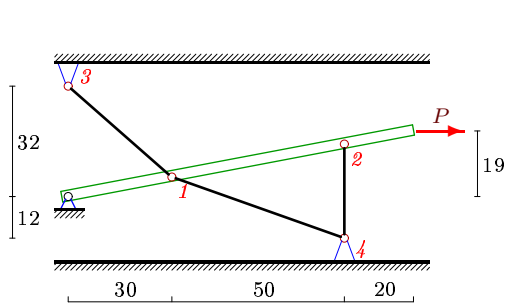
1

$$P = [14, 15, 17, 20] \text{ кН.}$$

**Задача L-16.23.**

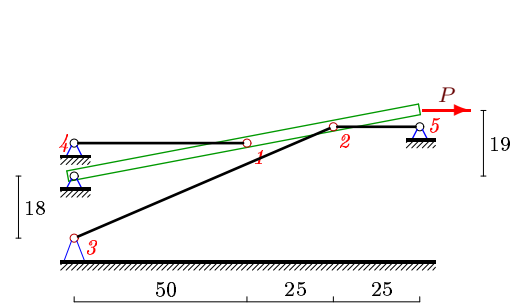
1

$$P = [12, 13, 15, 18] \text{ кН.}$$

**Задача L-16.24.**

1

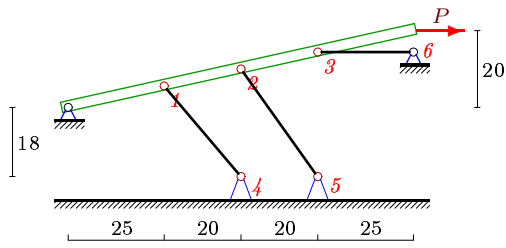
$$P = [26, 27, 29, 32] \text{ кН.}$$



**Задача L-16.25.**

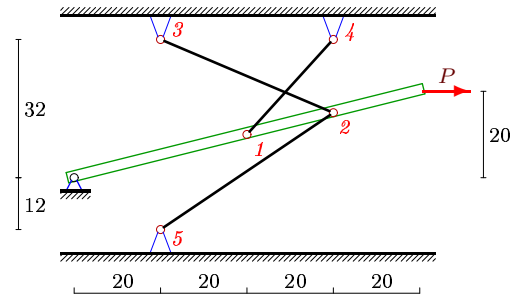
1

$$P = [26, 27, 29, 32] \text{ кН.}$$

**Задача L-16.26.**

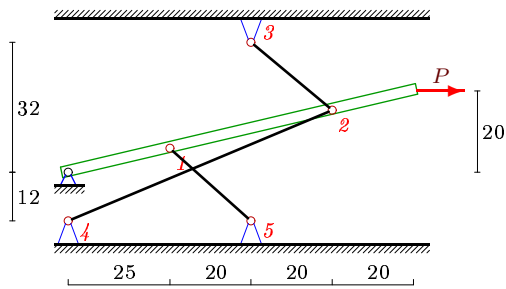
1

$$P = [16, 17, 19, 22] \text{ кН.}$$

**Задача L-16.27.**

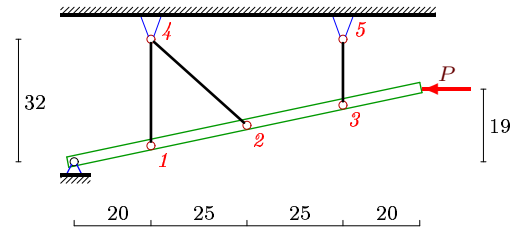
1

$$P = [16, 17, 19, 22] \text{ кН.}$$

**Задача L-16.28.**

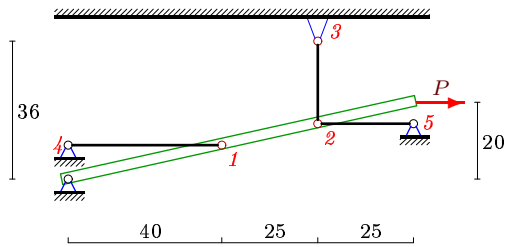
1

$$P = [16, 15, 13, 10] \text{ кН.}$$

**Задача L-16.29.**

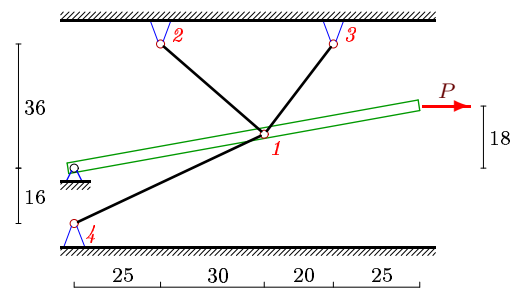
1

$$P = [22, 23, 25, 28] \text{ кН.}$$

**Задача L-16.30.**

1

$$P = [22, 23, 25, 28] \text{ кН.}$$



**Ответы.**  
**Статически неопределимая система**

22-Jan-16

$N^o$	$m$	$D$	$\alpha_2$	$m$	$D$	$\alpha_2$	$m$	$D$	$\alpha_2$
1	-5.053	0.136	25.667	9.416	0.474	89.130	-9.304	0.463	87.019
		$S_{1-5}$			$S_{2-4}$			$S_{3-6}$	
2	-2.159	0.067	4.728	5.108	0.374	26.465	-1.447	0.030	2.123
		$S_{1-3}$			$S_{2-5}$			$S_{1-4}$	
3	-6.019	0.395	36.626	-6.057	0.400	37.085	-1.793	0.035	3.251
		$S_{2-5}$			$S_{1-4}$			$S_{1-3}$	
4	-4.247	0.294	18.327	3.465	0.195	12.202	5.805	0.548	34.242
		$S_{1-3}$			$S_{2-4}$			$S_{2-5}$	
5	-2.168	0.083	4.782	1.787	0.056	3.249	0.668	0.008	0.454
		$S_{1-4}$			$S_{1-3}$			$S_{1-2}$	
6	-7.091	0.314	50.602	-3.014	0.057	9.140	-3.918	0.096	15.448
		$S_{2-4}$			$S_{2-5}$			$S_{1-3}$	
7	-0.456	0.004	0.212	1.746	0.057	3.105	-2.549	0.121	6.621
		$S_{1-2}$			$S_{1-4}$			$S_{1-3}$	
8	-0.997	0.021	1.015	0.353	0.003	0.128	2.990	0.193	9.135
		$S_{1-3}$			$S_{1-4}$			$S_{2-5}$	
9	3.585	0.080	12.935	8.069	0.407	65.518	-7.551	0.356	57.370
		$S_{1-5}$			$S_{2-3}$			$S_{2-4}$	
10	-0.535	0.004	0.290	5.423	0.402	29.812	-0.354	0.002	0.127
		$S_{1-5}$			$S_{3-4}$			$S_{2-5}$	
11	-2.316	0.297	5.662	-0.225	0.003	0.053	0.686	0.026	0.497
		$S_{3-4}$			$S_{2-6}$			$S_{1-5}$	
12	-0.189	0.001	0.037	0.082	0.000	0.007	-2.426	0.211	6.097
		$S_{1-3}$			$S_{2-5}$			$S_{2-4}$	
13	-3.616	0.142	13.218	-2.310	0.058	5.396	-1.297	0.018	1.701
		$S_{1-4}$			$S_{2-4}$			$S_{1-3}$	
14	-2.736	0.040	7.524	-3.141	0.053	9.916	9.347	0.467	87.831
		$S_{1-5}$			$S_{3-6}$			$S_{2-4}$	
15	0.216	0.000	0.047	3.917	0.082	15.428	-2.817	0.042	7.976
		$S_{1-5}$			$S_{2-3}$			$S_{2-4}$	
16	-3.034	0.068	9.272	5.482	0.222	30.274	9.139	0.618	84.136
		$S_{1-4}$			$S_{1-2}$			$S_{1-3}$	
17	-10.116	0.547	102.878	-5.094	0.139	26.092	-1.547	0.013	2.406
		$S_{1-4}$			$S_{2-5}$			$S_{2-3}$	
18	-1.151	0.022	1.347	-4.966	0.401	25.066	0.614	0.006	0.383
		$S_{2-3}$			$S_{2-4}$			$S_{1-5}$	
19	-0.242	0.004	0.063	1.865	0.249	3.726	-2.178	0.339	5.082
		$S_{1-4}$			$S_{2-5}$			$S_{2-3}$	
20	-2.390	0.316	6.027	0.373	0.008	0.147	0.689	0.026	0.502
		$S_{2-3}$			$S_{1-4}$			$S_{2-5}$	
21	-1.912	0.027	3.681	-9.035	0.604	82.227	6.125	0.277	37.792
		$S_{2-4}$			$S_{1-5}$			$S_{2-3}$	

№			
1	-4.542	8.464	-8.363
2	-2.517	5.954	-1.686
3	-5.150	-5.182	-1.534
4	-4.996	4.076	6.829
5	-1.770	1.459	0.545
6	-6.316	-2.684	-3.490
7	-0.542	2.076	-3.031
8	-1.199	0.425	3.597
9	3.193	7.187	-6.725
10	-0.449	4.546	-0.297
11	-3.070	-0.298	0.909
12	-0.238	0.104	-3.062
13	-3.094	-1.977	-1.110
14	-2.459	-2.823	8.402
15	0.194	3.521	-2.532
16	-2.673	4.830	8.052
17	-9.093	-4.579	-1.391
18	-1.355	-5.843	0.722
19	-0.332	2.555	-2.983
20	-3.167	0.494	0.914
21	-1.684	-7.960	5.396
22	-3.349	-6.141	2.605
23	-0.260	0.541	-2.637
24	-21.208	-7.536	7.069
25	-8.298	-3.888	-4.933
26	-2.383	4.185	4.666
27	-0.393	-1.966	5.135
28	-0.644	-3.634	-0.988
29	6.431	0.474	-1.232
30	-1.000	4.808	4.603