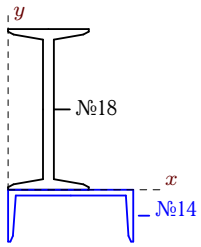
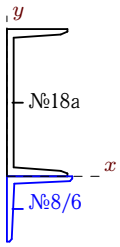
Геометрические характеристики сечений

Найти максимальный и минимальный моменты инерции составной фигуры и угол наклона главной оси инерции к оси x. Ось x горизонтальная, направлена направо, ось y — вертикальная вверх. Использованы двутавры ГОСТ 8239-89, швеллеры ГОСТ 8240-89 и уголки ГОСТ 8509-86

Задача 6.1.



Задача 6.2.



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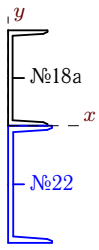

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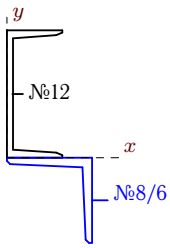

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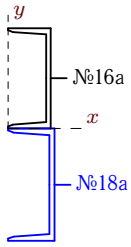

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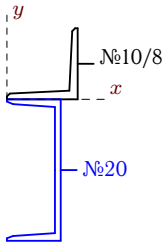

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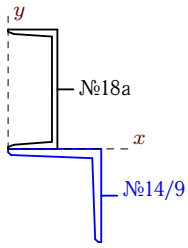

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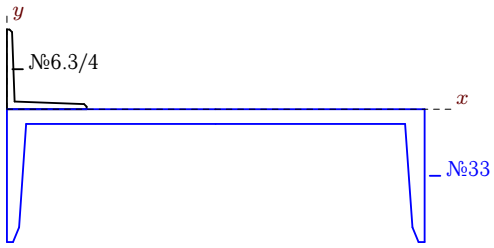

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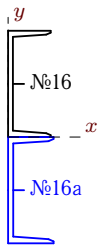

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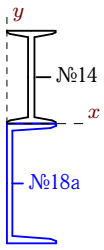

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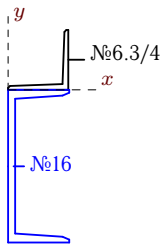

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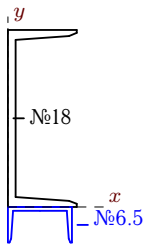

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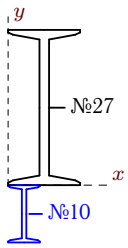

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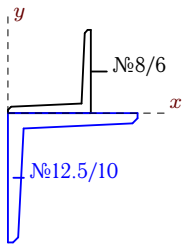

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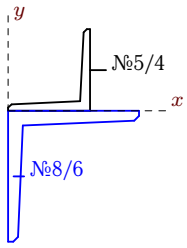

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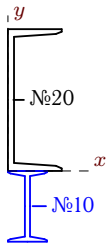

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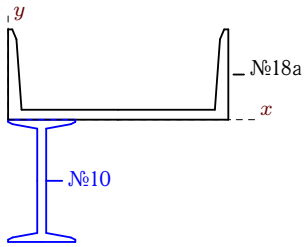

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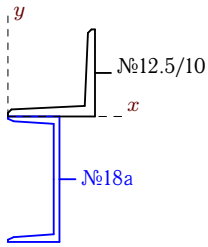

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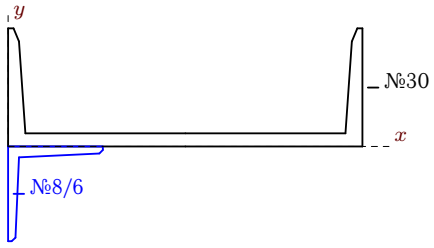

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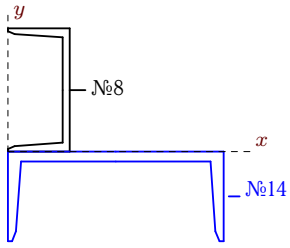

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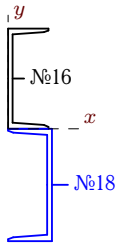

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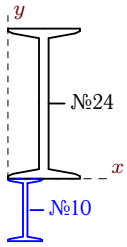

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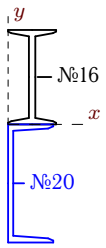

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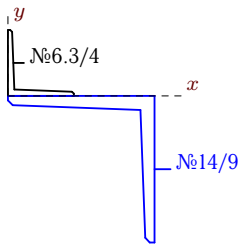

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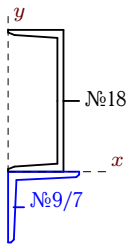

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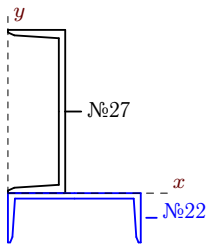

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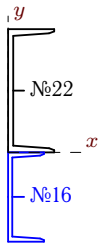

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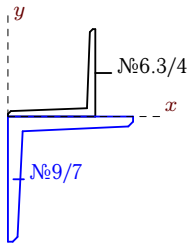

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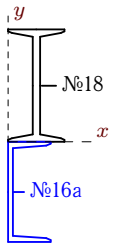

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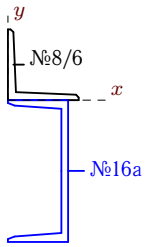

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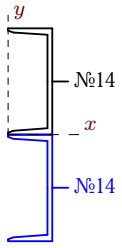

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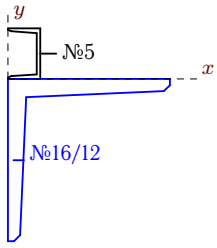

6.2

Геометрические характеристики сечений

	F	x_c	y_c	J_x	J_y	J_{xy}	J_{max}	J_{min}	α_x
	см^2	см		см^4					градусы
1	39.00	5.50	4.73	2401.03	632.10	-249.68	2435.59	597.53	7.88
2	31.58	2.15	5.68	2072.66	162.02	28.97	2073.10	161.58	-0.87
3	48.90	2.17	-1.92	8148.59	256.08	-19.39	8148.64	256.03	0.14
4	22.68	3.31	2.61	729.96	188.49	-225.76	811.74	106.71	19.91
5	41.70	5.05	-1.05	5013.19	186.09	-82.95	5014.62	184.67	0.98
6	39.00	6.22	-4.90	3188.59	287.69	291.26	3217.54	258.74	-5.68
7	46.90	7.88	2.27	3565.58	857.48	-1012.63	3902.35	520.71	18.40
8	51.46	15.07	-2.18	511.00	8981.95	-295.10	8992.22	500.73	88.01
9	37.60	1.90	-0.30	3973.06	142.48	-30.04	3973.30	142.24	0.45
10	39.60	2.80	-1.97	4259.16	169.44	237.23	4272.88	155.72	-3.31
11	23.06	2.40	-5.92	1131.45	112.94	117.01	1144.72	99.67	-6.47
12	28.21	2.29	6.27	1676.54	144.06	-73.92	1680.10	140.50	2.76
13	52.20	5.45	9.25	8370.86	391.11	598.38	8415.48	346.49	-4.26
14	33.68	4.11	-1.88	632.28	454.69	334.48	889.55	197.42	-37.57
15	13.27	2.61	-1.14	101.25	71.83	52.83	141.38	31.71	-37.22
16	35.40	2.30	4.92	3502.75	134.57	-80.91	3504.69	132.63	1.38
17	34.20	6.81	-0.37	698.99	1512.18	347.12	1640.19	570.97	-69.76
18	46.50	7.25	-2.49	3348.23	630.76	756.97	3544.86	434.13	-14.56
19	49.88	12.59	1.63	552.96	7116.77	492.92	7153.58	516.15	-85.73
20	24.58	5.43	0.40	318.03	609.67	-139.28	665.50	262.20	68.16
21	38.80	3.54	-1.07	4627.71	251.92	-535.16	4692.21	187.43	6.87
22	46.80	4.98	7.64	6236.77	296.21	455.08	6271.43	261.55	-4.36
23	43.60	2.99	-1.66	5905.58	214.10	386.38	5931.69	187.99	-3.87
24	29.66	8.79	-2.87	608.49	785.44	-476.73	1181.83	212.10	50.26
25	33.00	4.09	4.72	2199.35	232.06	284.91	2239.78	191.63	-8.08
26	61.90	8.74	6.72	8058.28	2611.30	-946.96	8218.21	2451.37	9.59
27	44.80	2.04	3.32	6751.21	216.11	84.03	6752.29	215.03	-0.74
28	17.26	3.08	-1.27	174.37	129.39	98.17	252.59	51.17	-38.55
29	42.90	3.36	1.27	5186.91	227.88	452.05	5227.78	187.01	-5.17
30	28.88	3.95	-4.69	1537.64	178.94	-201.84	1566.99	149.59	8.27
31	31.20	4.13	0.00	2510.80	90.80	0.00	2510.80	90.80	90.00
32	43.56	4.06	-3.42	1186.87	947.82	451.36	1534.27	600.42	-37.58